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# On inversions and the interpretation of subjects in French

FRANK DRIJKONINGEN AND BRIGITTE KAMPERS-MANHE

## Abstract

*In this paper we discuss the interaction between postverbal subjects in French and interpretations of (in)definite DPs, including relevant pragmatic properties generally stated in terms of topic and focus. We show that postverbal subjects are not homogeneous, neither from the perspective of theories that explain differences among DPs in terms of (in)definiteness (distinctions between 'high' and 'low' readings) nor from the perspective of theories that distinguish topic-oriented constructions from focalisation. We argue that mapping theories should be kept as 'clean' as possible, so that they may shed light on the position of the subject DP, i.e. the syntax of inverted structures. We show that interpretative and pragmatic variation in combination with a simple mapping theory argues in favor of a diversity of syntactic (remnant) movements somewhat richer than has been standardly assumed for French (and somewhat different too). We propose a (partial) hierarchy of functional projections  $Wh < Topic < Generic < Focus < Existential$  with three types of remnant movement in embedded clauses and a fourth one in root *wh*-questions.*

**1. Introduction: Setting the scene<sup>1</sup>**

As is well-known, postverbal subjects in impersonal constructions are subject to an indefiniteness restriction (or definiteness effect), unlike the corresponding non-impersonal (or personal) constructions. The effect is illustrated in (1) for French, and appears to be rather language independent, as it occurs in several languages (e.g. Dutch or English).

- (1) a. \**Il est arrivé Jean.*  
           there is arrived Jean  
       b. *Il est arrivé quelqu'un.*  
           there is arrived someone  
           'Someone has arrived.'

A reverse effect has been noted for postverbal subjects in French *wh*-questions. The combination of an overtly moved *wh*-element with a postverbal indefinite subject is ungrammatical, so that here one can say there is a definiteness restriction (or indefiniteness effect), as illustrated in (2).

- (2) a. *Quel gâteau a mangé Jean?*  
           which cookie has eaten Jean  
           'Which cookie has Jean eaten?'  
       b. \**Quel gâteau a mangé quelqu'un?*  
           which cookie has eaten someone

This has been dubbed the counter-indefiniteness effect (De Cornulier 1974, Kupferman 1983). The term focuses on the reverse nature of the effect: definites are excluded in the impersonal construction, while indefinites are excluded in these *wh*-questions.

Kayne and Pollock (2001) (henceforth K&P) argue that their remnant movement analysis of the inversion in (2) provides an explanation of the counter-indefiniteness effect by making use of the functional structure of the clause. In essence, the definite subject is moved out of the IP prior to remnant movement, as illustrated in (3a), cf. K&P: 118, where the FP is a Topic Phrase, as illustrated in (3b), cf. Ambar and Pollock (2002: 119):

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1. The research reported here is part of the research program of the Utrecht institute of Linguistics (UiL-OTS) and of the Centre for Language and Cognition Groningen (CLCG). A very preliminary version of parts of this work has been published as a working paper (Drijkoningen and Kampers-Manhe 2001), some content of which has been taken into consideration for Chapter 5 in de Swart and Corblin (2004). The paper has been presented in Valencia (Spain, SLE 38, September 2005). We thank our Dutch colleagues, our PICS colleagues and two anonymous reviewers for their pertinent criticism and suggestions. All remaining errors are ours.

- (3) a. [FP Jean<sub>i</sub> F [IP t<sub>i</sub>-SCL ... ]]  
 b. [TOPP Pierre<sub>i</sub> Top [IP t<sub>i</sub> ... ]]

The step is considered to be excluded for true indefinites, so that in practice the FP/TopP is sensitive to properties of definiteness.

Let us point out immediately that counter-indefiniteness is also known to be specific to the type of inversion in (2). It does not occur in other types of French wh-questions, in particular not in the inversion type in (4).

- (4) a. *Quel livre Jean a-t-il lu?*  
 which book Jean has-he read  
 'Which book has Jean read?'  
 b. *Quel livre quelqu'un a-t-il lu?*  
 which book someone has-he read  
 'Which book has someone read?'

The contrast between (4) and (2) is attributed to the different syntactic derivation of the inversion in each case. Hence, the counter-indefiniteness effect is considered to be one of the properties distinguishing the two types of French inversion, namely Stylistic Inversion, (2), and (Complex) Subject Clitic inversion, (4), respectively. The inverted structures in (2) have essentially the same structural properties as free inversion in Italian or Spanish. Standard analyses (in the Principles and Parameters model, e.g., Rizzi and Roberts 1989) are based on the profoundly "Romance" character of the structure, with a pro subject in the preverbal position. The inverted structures in (4) have essentially the same structural properties as Verb Second in German or Dutch. Standard analyses (in the Principles and Parameters approach, e.g., Dijkonings (1989 and Rizzi 1991) are based on the profoundly "Germanic" character of the structure, without a pro subject, but with movements into the C area. The split obviously reflects the history of the language (Roberts 1993, de Bakker 1997). There are more recent analyses, in particular involving remnant movement (see Pollock 2006).

It is the very idea of K&P and the mere fact that inversion types may differ in this respect that inspired us to look into the properties of indefinites for a larger array of postverbal subjects, and in different types of inverted structures. Taking the essence of the approach of K&P and subsequent work to be correct, both general theoretical and language-specific questions emerge.

From a theoretical perspective, one could ask whether the counter-indefiniteness effect is language-specific and occurs strictly only in French because of the fact that French has two inversion types or whether, on the contrary, the effect is quite widespread and becomes visible in French in these two inversion types, but could also be detectable in other languages. Eventually, we will suggest that the counter-indefiniteness effect is indeed more widespread, and there

is some evidence in the literature to this effect as well. However, this question is not the main issue in this paper.

This paper is concerned with the language-specific perspective. Given contrasts between constructions statable in terms of definiteness, do all postverbal subjects in French behave in the same way? Is Stylistic Inversion homogeneous in this respect? Should the rule be split into several different instantiations? To what extent do relatives generalize with *wh*-elements from this perspective? Are subjunctives special? Also, if DP inversion does not appear to be restrictable in terms of definiteness, what are the other factors that may play a role? Might Focus interfere? If so, where exactly? Or should we consider the Topic? This array of questions forms the background of this paper.

The paper is structured as follows. In Section 2 we will be concerned with postverbal subjects in general from a syntactic perspective, ignoring interpretative and information-structural differences. In Section 3 we will discuss the (im)possible occurrences of several types of indefinites in the types of inversions we take into consideration. In Section 4 we will link these data to syntactic structures in order to make the analysis of the different types of inversion explicit, leaning on the assumption that the readings and information-structural properties of the (in)definites must follow from their structural position. Section 5 will summarize the results and offer some more speculative remarks for other languages based on the conclusions reached for French.

## 2. Types of postverbal subjects: Agreement and restrictions

In this section we discuss only a few crucial syntactic properties of the inverted structures that will be subject to closer scrutiny in the following sections. We will distinguish the five constructions in (5), a division that has proven to be very practical.<sup>2</sup> We leave aside the question as to whether indeed five is the correct number in the eventual analysis.<sup>3</sup> Put differently, we distinguished these five constructions in order to look into the interpretative effects in Section 3 without too large a bias.

- (5) (i) Direct *wh*-questions
- (ii) Impersonal construction
- (iii) Inversion in relatives

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2. The five constructions do not exhaust a superficial list of environments for postverbal subjects; absent, for example, is the non-root version of *wh*-movement (*Je me demande où est allé Jean* 'I wonder where John has gone to').

3. Quod non. Since at least Chomsky (1981) labels for superficial descriptions of constructions are just that – surface construction labels. On the analysis level, they are to be explained by deeper, more primitive operations.

- (iv) Locative inversion
- (v) Inversion in subjunctive clauses

While presenting the inverted structures we will pay particular attention to agreement and to restrictions as to the number of allowed postverbal DPs. This, admittedly, is a very tiny subset of the syntactic properties of the constructions with postverbal subjects that could be discussed. However, these two properties suffice for the discussion of the interpretative and information structural properties of the postverbal subject DPs.

### 2.1. Agreement

Among the five constructions mentioned in (5), only one has an agreement property that is not shared by the other types of inversion, as shown in (6).

- (6)
- a. *Il est (\*sont) venu (\*venus) des linguistes.*  
there is+sing (\*plur) come+Ø (\*plur) indef.art.  
‘Linguists have come.’
  - b. *Où sont (\*est) allés (\*allé) les enfants?*  
where are+plur (\*sing) gone+plur (\*sing) the children  
‘Where have the children gone to?’
  - c. *La maison que construisent (\*construit) ses copains*  
the house that build+plur (\*sing) his friends  
‘The house that his friends are building’
  - d. *Dans le jardin jouaient (\*jouait) des enfants.*  
in the garden played+plur (\*sing) indef.art.  
children  
‘Children were playing in the garden.’
  - e. *Elle aimerait que viennent (\*viennent) des linguistes.*  
she would-like that come+plur (\*sing) indef.art.  
linguists  
‘She would like linguists to come.’

In impersonal constructions in French, the verb agrees with the impersonal clitic pronoun, third person masculine (or neuter) singular, while the other four types of constructions illustrate agreement with the postverbal DP. The pattern is repeated in terms of participle agreement, as shown in (6a) and (6b). This suggests that the postverbal “subject” in the impersonal construction actually

occupies the object position; participle agreement confirms this in the sense that not even the specifier position of the participial phrase is made use of (see Kayne 1985 and Drijkoningen 1999 for the details of participle agreement). These agreement data also suggest that the other four types of postverbal subjects are in the regular subject position and that the specifier position of the participial small clause, when present, as in (6b), is made use of.

The fact that the expletive clitic subject pronoun determines agreement is part of the larger generalisation that in French the clitic determines agreement in cases of a choice between a full DP and a clitic.<sup>4</sup> This can also be seen the two cases of clitic doubling in French: in those cases, it is the clitic that is relevant for agreement rather than the full subject DP, as illustrated in (7); the data show that the generalisation holds across different registers.<sup>5</sup>

- (7) a. *Nous on part (\*partons) plus tard<sup>6</sup>.*  
 we one leaves (\*first person plural) later  
 ‘We are leaving later.’  
 b. *Pourquoi Jean et moi devrait (\*devrions)-on*  
 why Jean and me should (\*first person plural)-one  
*partir?*  
 leave  
 ‘Why should Jean and I leave?’

This generalization has been captured in various fashions, all of which make use of the syntactico-morphological properties of the clitic: for the computational system it is considered as closer to the verb than the full DP (see e.g. for the Hulk 1982 and Jaeggli 1982 for a direct implementation of this line of argumentation, but see also the volume by van Riemsdijk 1999 for more recent developments). For Stylistic Inversion we add that this generalization includes the silent subject clitic used by K&P in (3a).<sup>7</sup>

4. As pointed out by one of the reviewers, one of the two options for copular constructions with subject clitic *ce* must then be considered to be exceptional or problematic: *Ce sont des linguistes* alongside the predicted *C'est des linguistes*. This fact can be captured if we assume that *ce* is specified as third person (\**Ce suis je etc.* / \**Ce suis moi etc.* / *C' est moi etc.*), but underspecified for number, such that the predicate may optionally supply [+plural] by predication due to the copular nature of the construction. The choice seems to be register bound ([+plural] in normative grammars for third person plural entities).

5. (7a) is typically spoken language, (7b) is more neutral written language.

6. Participle agreement in this example would be on the basis of the reference of the clitic *on*.

7. In fact, the silent clitic is invoked by K&P also in order to explain an agreement property: it is limited to third person according to K&P (p. 118). It is not fully established, according to us, whether the restriction is unique for silent clitics or might have a more general scope including possibly non-silent clitics. In this respect, the examples with *ce* in Note 4 seem to illustrate a similar restriction, and complex inversion is not very acceptable with overtly doubled first/second persons either (\**Où toi es-tu allé?*), cf. Kayne's (1984: 219) exclusion of first and second person pronouns in complex inversion.

As for the unsurprising agreement data in the four non-impersonal constructions, there are in fact a variety of theoretical alternatives. We will base our analysis on the approach given in (8) with a single TP, under the reasonable assumption that functional heads should have a function at the conceptual-intentional interface (cf. Chomsky 1995) and not simply involve uninterpretable deletable (agreement) copies.

- (8) [TP DP<sub>i</sub> T+AGR [<sub>VP</sub> t<sub>i</sub> —

For postverbal subjects in which the DP actually determines the agreement features of the verb, (8) is the starting point of the relevant subsequent derivational steps. Note that strict application of the explanation of the counter-indefiniteness effect in K&P leads to (9) as the source of the effect.

- (9) [<sub>TOPP</sub> DP<sub>i</sub> TOP [TP t<sub>i</sub> SCL T+AGR [<sub>VP</sub> t<sub>i</sub> —

Adoption of (8)–(9) does not yield surprising effects, except for locative inversion, as we will show below. Please note that DP movement in (8) is typically not the case for the impersonal construction/expletive replacement; (8) only covers the non-impersonal constructions. This is essentially why we think that (6) is worth full consideration. French is the only language known to us in which the agreement pattern in expletive constructions involves other feature values than agreement patterns in non-expletive constructions.

On the theoretical level, this also means that our analysis is not based on the assumption that there are pro subjects of the GB-standard type in French in inverted structures. Technically, this implies an increase in the number of movement operations of the remnant movement type. Empirically, it explains the simple fact that French is not a pro-drop language, not even in the reduced environments we propose. Although these reduced environments are similar to a subset of those allowed in true pro-drop languages such as Italian or Spanish, our analysis would find a natural extension by formulating alternatives for pro even in these languages if (and only if) an overt DP subject is present and is actually relevant for the agreement features of the finite verb. Spelling out this analysis for Italian, it implies that (10a) is typical of a pro-drop language (hence excluded in French, (10b)). French (11a) is typical of the construction for which an alternative remnant movement analysis is in order, as illustrated in (11b). For Italian, the situation can be illustrated with (12):

- (10) a. *pro* arriva. (Italian)  
           arrives  
           ‘x arrives’  
       b. \**pro* arrive. (French)  
           arrives  
           ‘x arrives’



- (11) a. *Où sont allés les enfants?*  
 where are gone the children  
 ‘Where have the children gone?’  
 b. [TP Les enfants<sub>i</sub> T+AGR[sont] [<sub>VP</sub> t<sub>i</sub> allés t<sub>i</sub> où]]  
 + remnant movement (details to be discussed)
- (12) a. *Arriva Gianni.*  
 arrives Gianni  
 ‘Gianni arrives.’  
 b. [TP Gianni<sub>i</sub> T+AGR[arriva] [<sub>VP</sub> t<sub>i</sub> ...]]  
 + remnant movement (with details)

The idea is conceptually in line with Kayne’s (1998) view on the importance of overt movement, and, more generally, in line with the general tenet of remnant movement analyses that make use of remnant movement in cases for which other theories delegate the relevant operations to covert operations at LF, to the syntax-semantics interface or beyond sentence-grammar (the latter two more specifically in relation to topic/focus).

Notice that the analysis avoids the classical binding problem of having a pronominal c-commanding a coindexed referential expression, i.e., *pro<sub>i</sub> arriva Gianni<sub>i</sub>* and *Où pro<sub>i</sub> est allé Jean<sub>i</sub>* as violations of principle C of the binding theory in Chomsky (1981) – which led to the assumption of an ‘expletive’ or ‘non-argumental’ nature of the empty pronominal if the subject is actually present in the clause (cf. Rizzi and Roberts 1989, Friedemann 1997 and others).<sup>8</sup> As we just have also shown, an analysis making use of an expletive *pro* cannot hold for French either, due to the agreement property of the expletive. This criticism does not extend to more recent analyses in which a DP starts out as a ‘doubled’ DP (as in e.g. K&P, Belletti (2007)). This type of approach is compatible: the combination of (8) and the generalization with respect to the relevance of the clitic for agreement can account for the relevant cases: the cases in which the ‘doubled’ DP is spelled out twice.<sup>9, 10</sup>

8. More concretely, a distinction between two types of expletives needed to be made: a *pro* with phi-features (*pro* as in English *he*), and a *pro* with default third person singular properties (*pro* as in English expletive *it*). Friedemann (1997: 66–71) spells out the issue on the basis of the difference between the impersonal construction (expletive *pro* in the true sense) and stylistic inversion (expletive in a second sense). We keep the first for true *pro*-drop languages, but seek to abandon the second; in practice, by assuming (8).

9. Theoretically, the “spreading distance” between the clitic part of the DP and the ordinary DP may be larger than the one illustrated in (3a) and (9).

10. Finally, also note that this does not necessarily exclude other uses of *pro*, such as its presence as an empty N in constructions with preverbal subjects, (12a), as the empty counterpart of *en* found with postverbal subjects:

## 2.2. Restrictions

None of the five constructions in (6) allow two full postverbal DPs, independently of their order, as shown in (13).

- (13) a. \**Où a acheté Jean des livres?*  
           where has bought Jean indef.art. books  
       b. \**Où a acheté des livres Jean?*  
           where has bought indef.art. books Jean  
       c. \**Il a acheté des gens des livres.*  
           there has bought indef.art. people indef.art. books  
       d. \**Il a acheté des livres des gens.*  
           there has bought indef.art. books indef.art. people  
       e. \**La pièce dans laquelle lit des livres Jean*  
           the room in which reads indef.art. books Jean  
       f. \**La pièce dans laquelle lit Jean des livres*  
           the room in which reads Jean indef.art. books  
       g. \**Dans le jardin lisent des poètes des livres.*  
           in the garden read indef.art. poets indef.art. books  
       h. \**Dans le jardin lisent des livres des poètes.*  
           in the garden read indef.art. books indef.art. poets  
       i. \**J'aimerais que lise Jean un livre.*  
           I would-like that read Jean a book  
       j. \**J'aimerais que lise un livre Jean.*  
           I would-like that read a book John

The restriction could be stated in terms of the transitivity of the verb, but this only holds for a subset of the constructions, for the impersonal construction and locative inversion. For *wh*-questions and for relatives, the restriction can be lifted by moving the object, as shown in (14). This option is not available in the other two cases, as shown by (15).

- 
- (i) [Trois *pro*] sont arrivés.  
       three pro are arrived
- (ii) Il *en<sub>i</sub>* est arrivé [trois *t<sub>i</sub>*].  
       there of-them are arrived three  
       'Three have arrived.'

This usage of *pro* is not related to the *pro*-drop parameter, as similar constructions occur in a variety of languages, including Dutch or English (*three have arrived*).

- (14) a. *Qu<sub>i</sub>'a dit t<sub>i</sub> Jean?*  
 what has said Jean  
 'What has Jean said?'  
 b. *La maison qu<sub>i</sub>'a construite t<sub>i</sub> Paul*  
 the house that has built Paul  
 'The house that Paul has built'  
 c. *A qui le<sub>i</sub> donnera t<sub>i</sub> ton ami?*<sup>11</sup>  
 to whom it-will-give your friend  
 'To whom will your friend give it?'
- (15) a. *\*Il les<sub>i</sub> a lus t<sub>i</sub> des poètes.*  
 there them-has read indef.art. poets  
 'Poets have read them.'  
 b. *\*Les livres qu<sub>i</sub>'il a lus t<sub>i</sub> des poètes.*  
 the books that there has read indef.art. poets  
 'The books that poets have read'  
 c. *\*Dans le jardin les<sub>i</sub> lisent t<sub>i</sub> des poètes.*  
 in the garden them-read indef.art. poets  
 'In the garden are poets reading them'

In this respect locative inversion shares properties with the impersonal construction. Although there are some relevant counter-examples,<sup>12</sup> we think that the link between the two is genuine. As is well-known, the impersonal construction is parameterizable in this respect, in the sense that there are languages with typically do allow for (13c) – languages which have transitive expletive constructions, such as Dutch in (16).

- (16) *Er hebben mensen boeken op de markt gekocht.*  
 there have people books on the market bought  
 'People have bought books at the market.'

We assume that the relevant parameter (independently of its exact formulation) which blocks (13c), (13d) and (15a) in French is also relevant for the exclusion of (13g), (13h) and (15c) and that this parametric effect cannot account for the other examples in (13), as shown in (14). In fact, quite a number of analyses of locative inversion build on the link with the impersonal construction (e.g.,

11. Some speakers make a difference between the cases in which the trace is the trace of a wh-element and the cases in which the trace is the trace of a clitic; they find (14a) better than (14c), although at the same time they find (15c) worse. It is the contrast between (14) and (15) that is the most relevant in this paper.

12. *Comme il me l'a été suggéré* as an impersonal construction with an object clitic (cf. Kayne 1984: 201); *Dans ce jardin ne lisent un livre que Paul et Marie* (as given by one of the reviewers) as a locative inversion with an exhaustively focused subject modified by *ne ... que*.

Hoekstra and Mulder 1990); Below we will show that interpretative properties of these two constructions also indicate that there is a link.<sup>13</sup> In essence, we consider the restriction in (13) to be more fundamental for two cases, those in (15), while the restriction is PF-oriented for the other two cases, those in (14), as has been argued independently by Friedemann (1997).<sup>14</sup> The link is also relevant for the pattern in (17).

- (17) a. \**Il dort des enfants.*  
           there sleeps indef.art. children  
       b. *Il dort des enfants sur la terrasse.*  
           there sleeps indef.art. children on the terrace  
           ‘Children sleep on the terrace.’  
       c. *Sur la terrasse dorment des enfants.*  
           on the terrace sleep indef.art. children  
           ‘On the terrace sleep children.’

Unaccusative verbs in general do allow the impersonal construction, as shown in (1), but the occurrence of unergative verbs is more restricted, as shown by (17a). The impersonal construction of an unergative verb in this case can be licensed by adding a locative, as in (17b), and on the basis of (17b), a structure with locative inversion can also be generated, (17c). The opposition between (17a) on the one hand and (17b) and (17c) on the other is most economically explained by linking the two constructions (postverbal subjects are allowed with unergatives if a locative is present – despite the agreement difference).<sup>15</sup> In practice, the analyses that we are aware of build on the idea that (17b) is basic and that (17c) is derived from it in a way that the necessity to insert an expletive is circumvented (but the analyses differ in the way how they do this).

To sum up, there is a class of constructions with a PF-oriented restriction (relatives and wh-questions), a class of constructions with a more fundamental restriction (impersonal constructions and locative inversion). The third class

13. For Dutch, our assumption predicts the grammaticality of transitive locative inversions. The grammaticality of examples of the type *In deze tuin hebben dichters boeken zitten lezen* ‘In this garden have poets books been reading’ suggests that the proposal is tenable. It is implementable by adapting/updating the analysis of Hoekstra and Mulder (1990) while making use of the current inventory of functional projections. See Drijkoningen (in prep.), which in fact shares the core idea of the analysis of locative inversion proposed in Section 3.

14. Friedemann (1997) argues in favor of an adjacency condition in the PF branch of the grammar.

15. The formulation does not entail that unaccusatives are excluded with locatives: *Dans le ciel apparut un ange* ‘In the sky appeared an angel’. There seem to be restrictions on the locative itself, however, which we are unable to pin exactly (e.g., \**A Paris arrivèrent des jeunes gens* ‘In Paris arrived young people’, but *De la salle sortirent des jeunes gens* ‘Out of the room came young people’).

(subjunctives) presents so much speaker variation<sup>16</sup> that we refrain from making a hard statement in this respect.

### 3. Definites and readings of indefinites

#### 3.1. Mapping theories and the readings of indefinites

The core idea of mapping theories is that the syntactic position of a DP is directly relevant for its interpretation and vice versa such that the interpretative properties of a DP are directly relevant for its syntactic position. This one-to-one correspondence does not only explain the use of existential closure for indefinites in impersonal constructions, but also the definiteness restriction. Syntactic positions are directly linked to the range of interpretations allowed; if a DP appears in syntactic position *x* and has the corresponding interpretative properties *x*, then the structure is correct; if a DP appears in a syntactic position *y* and does not have the interpretative properties *y*, then the structure is incorrect. This proposal led to an increase of available positions in the syntactic structure in order to accommodate this direct link, such as the relevance of a VP-internal subject position in English. Consider for instance the theory proposed in Diesing (1992). She argues that (18) can have (at least) two different interpretations.

- (18) *Firemen are available.*  
 (i) Existential reading  
 (ii) Generic reading

As the two readings should be directly linked to the syntactic structure, she proposed that the subject inside VP (the ‘low’ subject position) gives rise to existential closure, while the subject inside IP (the ‘high’ subject position) gives rise to the other readings, among which the generic reading. On the basis of this division, a distinction between ‘high’ and ‘low’ readings has become standardly accepted. In order to achieve the desired result at the technical level, Diesing proposed making use of LF-lowering, as illustrated in (19).

- (19) (i) Existential reading:  
 LF-lowering [<sub>IP</sub> *t<sub>i</sub>* are [<sub>VP</sub> firemen<sub>i</sub> available]]

16. For some core examples the idealized variation is illustrated in the table:

	A	B	C
a. <i>Je veux que parte Paul</i>	✓	✓	✓
b. <i>J'aimerais que chante Marie</i>	✓	✓	*
c. <i>Je doute que l'aime Charlotte</i>	✓	*	*

- (ii) Generic reading:  
Box splitting [<sub>IP</sub> firemen<sub>i</sub> are [<sub>VP</sub> t<sub>i</sub> available]]

Diesing's operation of LF-lowering is subject to the common criticism that lowering operations are prohibited by general conditions on movement: an antecedent should c-command its trace (including at LF). In Section 4 we will propose a technical amendment. In this section we wish to capitalize on the difference between the 'high' readings of indefinites and their 'low' readings. We will start by discussing the availability of these two types of readings in inverted structures.

### 3.2. The existential reading

As has been stated in the introduction, the standard definiteness effect is found in the impersonal construction and the reverse effect, the counter-indefiniteness effect, in *wh*-questions with DP inversion. In both cases, the effects bear on the reading related to the introduction in discourse of a new (non-given) entity, in the sense of Heim's (1982) File Change Semantics or Kamp and Reyle's (1993) Discourse Representation Theory.

Let us first consider the possibility of (in)definites in the other inversions, locative inversion (20), relative clauses (21) and subjunctive clauses (22).

- (20) a. *Dans la forêt vit un vieil ermite.*  
in the forest lives an old hermite  
b. \**Dans la forêt vit le vieil ermite.*  
in the forest lives the old hermite
- (21) a. *Les objets qu' a volés quelqu'un*  
the objects that has stolen someone  
b. *Les objets qu' a empruntés mon frère*  
the objects that has borrowed my brother
- (22) a. *J'aimerais que vienne quelqu'un.*  
I would-like that come someone  
'I would like someone to come.'  
b. *Elle veut que soit renvoyé Paul.*  
she wants that be fired Paul  
'She wants Paul to be fired.'

The inverted DP in relative clauses appears to be unrestricted in terms of definiteness without much additional argumentation. For locative inversion and for subjunctive clauses some additional facts merit discussion.

3.2.1. *Existential reading: Locative inversion.* As for the existential readings in locative inversion, there has generally been more discussion. Let us first stress the fact that indefinites with an existential reading are allowed. Second, examples of the type in (20) are taken to be the typical cases, in some sense the core cases; the core cases illustrate a definite/indefinite dichotomy. But the main question<sup>17</sup> is whether or not the ungrammaticality of (20b) is illustrative of a general restriction comparable to the definiteness restriction.

There are examples in which definites are allowed, as shown in (23a). In this case, the addition of a demonstrative to the location is relevant for the improved grammaticality, as shown by (23b), where the location is replaced by a proper noun, and by (23c), where the location contains a definite article.

- (23) a. *Dans cette île mourut Napoléon.*  
           in that island died Napoleon.  
           ‘On that island died Napoleon.’  
       b. \**A Ste. Hélène mourut Napoléon.*<sup>18</sup>  
           at St. Helens died Napoleon  
       c. \**Dans l’ île mourut Napoléon.*  
           in the island died Napoleon  
           ‘On the island died Napoleon.’

Let us say that the internal structure of the locative itself is also involved in some way. Similarly, although it is quite normal to start a fairy tale with (24a), (24b) would be odd in this particular context, the “out of the blue” context. However, if a proper context is supplied, the use of a definite is accepted, cf. (24c).<sup>19</sup>

- (24) a. *Dans un splendide château vivait une belle princesse.*  
           ‘In a splendid castle lived a beautiful princess.’  
       b. \**Dans un splendide château vivait la belle*  
           in a splendid castle lived the beautiful  
           *princesse.*  
           princess

17. There are other questions, among which: Is any indefinite allowed? One might raise questions on the felicity of *Dans la forêt vivait quelqu’un* ‘In the forest lived someone’. However, in proper situations, sentences of this type are allowed, as shown by, e.g., *Après le tsunami on est parti pour rechercher les éventuels survivants. Dans la zone totalement détruite vivait encore quelqu’un dans un trou caché* ‘After the tsunami we went looking for survivors. In the area that was totally devastated still lived someone in a hidden hole’.

18. An exception must be made for the use of this construction in a list. The sentence would be all right in an enumeration of different places where celebrities died: *A Paris mourut Louis XVI; A New York John Lennon, ...*

19. Example (c) was supplied by one of the reviewers.

- c. *Ils pénétrèrent dans le château de la sorcière avec les plus grandes précautions. Après avoir exploré sans succès plusieurs pièces, ils entrèrent dans une gigantesque chambre et là:  
Sur un lit à baldaquin dormait la princesse tant  
on a four-poster slept the princess so-much  
recherchée.  
sought*  
'They came into the castle of the witch with great care. After exploring several rooms without success, they came into a huge bedroom and there:  
On a four-poster was sleeping the princess they had been searching for so long.'

With respect to (24c), the locative itself is involved; if properly anchored to the context (let us say that the bed is 'new' but not its location), a definite DP subject may be used. The examples are related to what Bresnan (1994) calls the 'presentational focus', which she illustrated with (25a) for English.

- (25) *Among the guests was sitting my friend Rose.*  
a. (i) *I was looking for my friend Rose.*  
(ii) *#Among the guests of honor was sitting my friend Rose.*  
(iii) *My friend Rose was sitting among the guests of honor.*  
b. (i) *I entered the huge party room.*  
(ii) *Among the guests of honor was sitting my friend Rose.*

Because *my friend Rose* is the topic of the sentence in (25a), it is infelicitous to use locative inversion. However, if *my friend Rose* is new to the context, as in (25b), locative inversion is felicitous. Hence, DPs in presentational focus may be definite. The notion of presentational focus recalls the notion of 'novel definites' of Heim (1982), the reactivation of old discourse referents in the phrasing by Corblin et al. (2004).<sup>20</sup> In (25a) *my friend Rose* is a discourse referent, and even the most prominent one besides the subject, and this is why it cannot be in presentational focus; in (25b) *my friend Rose* is not (yet) a regular discourse referent, and this is why it is a reactivated old one that can occur in presentational focus. We feel that the same applies to (24c): although the princess is not mentioned in the fragment, she figures at the background such that she can occur in presentational focus.

20. The set of "old discourse referents" looks unbounded. *My friend Rose* should be in it, *Napoleon* should be in it for (23), who couldn't be in it? Corblin et al. (2004: 9) phrase it as "discourse referents that are already part of the knowledge shared by speaker and hearer". The set may be huge, but is theoretically bounded (compared to the set of natural numbers).



In this respect, it should also not be forgotten that the definiteness effect in impersonal constructions has been subject to similar discussion, for example on the basis of examples given in (26).

- (26) a. *Il y est venu également mon vieil ami*  
 there to-it is come also my old friend  
*Carlos.*  
 Carlos  
 'My old friend Carlos came there too.'
- b. *Il n'est venu que mes trois copains, Paul,*  
 there NEG-is come only my three friends Paul,  
*Jean et Pierre.*  
 Jean and Pierre  
 'Only my three friends, Paul, Jean and Pierre came there.'
- c. *?Il dormait tranquillement dans son lit la plus belle fille qui se*  
*puisse imaginer.*  
 'There slept quietly in her bed the most beautiful girl that can be  
 imagined.'

We conclude that locative inversion has a definiteness effect comparable to the definiteness effect of the impersonal construction, and that both constructions allow for some leakage in the direction of allowing DPs as novel definites in presentational focus or in focus associated with *ne ... que (only)*.

3.2.2. *Existential reading: Subjunctive clauses.* For subjunctive inversion, it should be added that, although both definites and indefinites are accepted, there are additional restrictions which show that there is a contrast inside this type of inversion as well. The contrast does not come out in simple pairs like (27), but is detectable only in case there is some material following the inverted DP, as in (28).

- (27) a. *J'aimerais que vienne quelqu'un / Paul.*  
 I would like that comes someone / Paul  
 'I would like that someone/Paul came.'
- b. *J'aimerais que soient écrits des slogans / les*  
 I would like that be written indef.art. slogans / the  
*slogans.*  
 slogans  
 'I would like slogans/the slogans to be written.'
- (28) a. *\*J'aimerais que jouent les enfants dans la cour.*  
 I would like that play the children in the yard  
 'I would like the children to play in the yard.'

- b. *J'aimerais que jouent des enfants dans le jardin.*  
 I would like that play indef.art. children in the garden  
 'I would like children to play in the garden.'
- c. *Je veux que viennent plus de linguistes à nos réunions.*  
 I want that come more of linguists to our meetings  
 'I would like more linguists to come to our meetings.'
- d. \**Je veux que viennent ces linguistes à nos réunions.*  
 I want that come those linguists to our meetings  
 'I would like those linguists to come to our meetings.'

The data suggest that subjunctive inversion is best split in terms of definiteness properties in a way similar to the split in terms of the impersonal construction, as shown by Kampers-Manhe (1998). As a result, the availability of (in)definites in subjunctives must be related to the syntax of the construction; in particular, definites are excluded in constructions with a PP (or adverb) following the verb.

3.2.3. *Conclusion.* Focusing on the difference between the existential “new entity” reading and the non-existential “given entity” reading, the following table summarizes the data.

(29)		New DP	Given DP
	Impersonal construction	Ok	*
	Locative inversion	Ok	*
	Wh + inversion	*	Ok
	Relative + inversion	Ok	Ok
	Subjunctive + inversion with following PP/Adverb	Ok	*
	Subjunctive + inversion without following PP/Adverb	Ok	Ok

In light of these data, the syntactic generalization based on the restriction with respect to the impersonal construction and locative inversion is confirmed. However, the syntactic generalization in terms of A-bar operations is not confirmed. Wh-questions are different from relatives. This issue will be taken up in Section 4.

For the inversion in subjunctives, the different types leave all possibilities open for the analysis. The first type generalizes with the impersonal construction and locative inversion, the second type with relatives.

This concludes our discussion of the typical ‘low’ reading of indefinites. We now turn our attention to the typical ‘high’ reading of indefinites; these

are twofold, the generic reading (Section 3.3) and the ‘specific’ reading (Section 3.4).

### 3.3. Generic reading of the indefinite

The semantic interpretation of the indefinite article *un* does not always lead to the standard indefinite reading. More specifically, it can also be interpreted generically, as in (30).

- (30) *Un pompier est disponible.*  
 ‘A fireman is available.’

(30) is ambiguous between the one particular occasion in which there is a fireman available (existential reading) and the general characterization of the profession (generic reading). Actually, there is a third possibility, the reading in which *un* is interpreted as the numeral (1, *one*) instead of the determiner (*a*). We will return below to the special status of these “specific” readings.

As an independent property, French does not allow the impersonal construction<sup>21</sup> if the predicate is adjectival. Languages that do, such as Dutch, bring out the interpretative difference in syntax with overt material, as shown in (31).

- (31) a. *dat er een brandweerman beschikbaar is.*  
 that there a fireman available is  
 ‘that there is a fireman available.’ (existential reading only)  
 b. *dat een brandweerman beschikbaar is.*  
 that a fireman available is  
 ‘that a fireman is available.’ (generic reading)

However, the impersonal construction of verbs can bring out the difference also in French. The fact that the generic reading is excluded in the impersonal construction is borne out by the facts in (32).

- (32) a. *Il dort un clochard dans le métro.*  
 there sleeps a tramp in the subway  
 ‘A tramp is sleeping in the subway.’

21. This statement may be subject to some additional discussion, which does not affect the main line of argumentation. Pollock (1981) cites *Il reste encore disponibles quelques places* ‘There are still some seats available’ and *Il reste une place de disponible* ‘There is still one seat available’. We do feel that *Il n’est disponible qu’un seul pompier* ‘There is only one fireman available’ is much better than *Il n’est intelligent qu’un seul enfant* ‘There is only one child intelligent’. Likewise, it is possible to use *Il y a un pompier de disponible / qui est disponible* ‘There is one fireman available/who is available’.

- b. *Un clochard dort dans les stations de métro*  
a tramp sleeps in the stations of subway  
*quand il a froid.*  
when he has cold  
'A tramp sleeps in subway-stations when he is cold.'
- c. \**Il dort un clochard dans les stations de métro*  
there sleeps a tramp in the stations of subway  
*quand il a froid.*  
when he has cold  
'A tramp sleeps in subway-stations when he is cold.'

With respect to the counter-indefiniteness effect, if indeed it is the exact opposite of the standard definiteness effect, it is predicted that the generic reading will be allowed. This prediction is confirmed by the following examples.

- (33) a. *Où va une femme quand elle se querelle avec son mari? Chez sa mère.*  
where goes a woman when she herself-quarrels  
with her husband at her mother  
'Where does a woman go when she has an argument with her husband? At her mother's.'
- b. *Où dort un clochard quand il a froid? Dans les stations de métro.*  
where sleeps a tramp when he has cold? In  
the stations of subway  
'Where does a tramp sleep when he is cold? In subway-stations.'
- c. *Que désire une femme par dessus tout?*  
what wishes a woman above all  
'What does a woman want above all?'
- d. *Quel livre achète quelqu'un quand il est malheureux?*  
which book buys someone when he is  
unhappy  
'Which book does one buy when he is unhappy?'

In wh-questions, indefinites with the generic reading are readily accepted. In fact, this is an important observation for the issue we are focusing on. Indefinites are excluded in direct wh-questions, but this does not hold if the generic reading of the indefinite is assigned.

Building on the fact that locative inversion and impersonal constructions are close, we expect generic readings to be excluded for locative inversion. This corresponds to the facts, given in (34).

- (34) a. *\*Dans la jungle vit un singe.*  
in the jungle lives an ape  
b. *\*Dans ce genre de pièce fume un homme.*  
in this type of room smokes a man  
c. *\*Dans ce foyer habite une femme quand elle a divorcé.*  
in that shelter lives a woman when she has divorced

For relatives, the pattern is expected to be similar to that of the wh-questions; this is correct, as shown in (35).

- (35) a. *Davidoff, le cigare que fume un homme, un vrai.*  
Davidoff, the cigar that smokes a man, a real  
'Davidoff, the cigar that a man, a real man, smokes.'  
b. *Chanel, le parfum qu'achète une (vraie) femme.*  
Chanel, the perfume that buys a (real) woman

For subjunctive clauses, under the assumption that the generic 'high' reading patterns with definite subjects, the expectation is that this reading is available in one of the two types. As far as the data are concerned, the generic reading of the indefinite is ungrammatical, independently of the type of construction:

- (36) a. *\*Elle apprécie que fume un homme.*  
she appreciates that smokes a man  
'She appreciates that a man smokes.'  
b. *\*Elle aimerait que vienne un homme à l'heure.*  
she would-like that comes a man at the hour  
'She would like a man to come on time.'  
c. *\*Elle aimerait que joue un enfant dans la cour (parce que c'est là, sa place).*  
she would-like that plays a kid in the yard  
'She would like a kid to play in the yard (because that's his place).'

We add to this the data illustrating the generic use of the definite article, *le*.

- (37) a. *\*Il habite la femme dans sa maison après son divorce.*  
there lives the woman in her house after her divorce  
divorce  
b. *Que mange le lapin?*  
what eats the rabbit

- c. \**Dans la forêt habite l' ermite.*  
       in    the forest lives   the hermit
- d. \**Le cigare que fume l'homme.*  
       the cigar that smokes the     man
- e. \**Elle apprécie que fume l' homme.*  
       she appreciates that smokes the man

These suggest that there is no intervening factor related to the definite/indefinite nature of the article. Generic *un* and generic *le* show largely identical patterns,<sup>22</sup> thus corroborating our argumentation in which the reading is of importance.

On the basis of these data, the table in (29) can be enriched:

(38)	New DP	Given DP	Gen
Impersonal construction	Ok	*	*
Locative inversion	Ok	*	*
Wh-question	*	Ok	Ok
Relatives	Ok	Ok	Ok
Subjunctives + following material	Ok	*	*
Subjunctive – following material	Ok	Ok	*

Once again, locative inversion and the impersonal construction show identical behavior. Wh-questions and relatives coincide in properties, as earlier. The subjunctive, however, becomes more and more puzzling: for generic readings it patterns with the impersonal construction and locative inversion, but the effect is independent of the additional split we made on the basis of definiteness.

### 3.4. Specific vs. non-specific oppositions

In the literature a special position is occupied by *ne ... aucun*, as this is the indefinite that is allowed in wh-questions as well as in the impersonal construction, as shown in (39):

- (39) a. *Il n'est arrivé aucun paquet.*  
           there not-is arrived no     package  
           'No packet has arrived.'

22. Although grammaticality of the cases with the definite article improve if an adjective is added, as in *Dans les forêts de Bornéo vit encore le tigre asiatique* 'In the forests of Bornea still lives the Asian tiger'. The interaction between generic readings and kinds is beyond the scope of this paper. Note that our analysis is not falsified if generic *le* is not perfectly identical to generic *un*.

- b. *Quel roman n'a aimé aucun étudiant?*  
 which novel not-has liked no student  
 'Which novel did not any student like?'

Contrary to the determiners above, these break the patterns that we observed hitherto. Let us first look at the other inversions.<sup>23</sup>

- (40) a. *Dans la forêt ne vit plus aucun singe.*  
 in the forest not lives more no ape  
 'In the forest does not live any ape anymore.'  
 b. *L' article que ne comprendra aucun étudiant.*  
 the article that will-not-understand no student  
 'The article that no student will understand.'  
 c. *Marie veut que ne collabore aucun enseignant.*  
 Mary wants that not-collaborates no teacher  
 'Mary wants no teacher to collaborate.'

Evidently, there are no restrictions on the occurrence of *aucun*. Rather than being surprising, this is in fact integrated in another set of data discussed above. As pointed out, there is a 'specific' reading for indefinites. In what follows, we will distinguish three different readings of constituents which have indefinite appearance (not counting the generic reading).

These three readings take into account the Noun, the Numeral and the discourse-based difference between given and new information (or the presupposition-based difference), as illustrated in (41), where the third case in fact is a refinement of the notion of 'specific'.<sup>24</sup>

- (41) *trois linguistes*  
 three linguists  
 (i) entity: new (linguists) number: new (3)  
 two new pieces of info  
 both linguists and the number are not presuppositional  
 (ii) entity: given (linguists) number: new(3)  
 one new piece of info  
 linguists are presuppositional, the number is not

23. The patterning cannot stem from a restriction on the postverbal position; in all cases the preverbal position is also possible: *Aucun paquet n'est arrivé*; *Quel roman aucun étudiant n'a-t-il aimé?*; *Dans ce désert aucun animal ne peut survivre* 'In this desert no animal can survive'; *L'article qu'aucun étudiant ne comprendra*; *Marie veut qu'aucun enseignant ne collabore*.

24. The normal usage of the notion of 'specific' seems to cover both (ii) and (iii). It might be useful to distinguish specific (ii) from 'very specific' (iii). On the meta-level this would be analogous to a distinction amongst low readings which is made, 'low' and 'superlow' (see also below).

- (iii) entity: given (linguists)    number: new subset (3) of given set  
both linguists and the number of them are presuppositional in context

The first case is generally connected to the impersonal construction, as in (42) for example; in this case the non-impersonal construction is somewhat infelicitous (although not ungrammatical).

- (42) A. *Qu'est-ce qui s'est passé?*  
'What happened?'  
B. a. *Il est arrivé* [<sub>new</sub> *trois* [<sub>new</sub> *linguistes*]]  
there is arrived three linguists  
b. #*[Trois linguistes] sont arrivés*  
three linguists are arrived  
'Three linguists have arrived.'

The second reading does not differentiate significantly between the impersonal and the non-impersonal construction, as shown in (43) and (44). For (43) there are speakers who prefer the non-impersonal, while for (44) there are speakers who prefer the impersonal. There also seems to be an influence from the way of formulating the question itself.<sup>25</sup>

- (43) A. [Aware that linguists have arrived]  
*Combien de linguistes sont arrivés?*  
how-many of linguists are arrived  
'How many linguists have arrived?'  
B. a. (#)*Il est arrivé* [<sub>new</sub> *trois* [<sub>given</sub> *linguistes*]]  
there is arrived three linguists.  
b. [<sub>new</sub> *Trois linguistes*] *sont arrivés*  
three linguists are arrived  
'Three linguists have arrived.'
- (44) A. [Aware that linguists have arrived]  
*Combien est-il arrivé de linguistes?*  
how-many is-there arrived of linguists  
'How many linguists have arrived?'

25. See Obenauer (1994) for the most elaborate theory concerning (floated) *combien*. Next to the two ways of formulating the question in (43) and (44), the third way of formulating the question is also relevant (see the next set of examples).



- B. a. *Il est arrivé* [<sub>new</sub> *trois* [<sub>given</sub> *linguistes*]]  
 there is arrived three linguists  
 b. (#)[<sub>new</sub> *Trois* [<sub>given</sub> *linguistes*]] *sont arrivés*  
 three linguists are arrived  
 ‘Three linguists have arrived.’

The third reading yields a difference that relates to the ‘specific’ readings. If both the speaker and his interlocutor share the presupposition that there are linguists coming and that the number of these is known to be *x*, then the use of the impersonal construction is infelicitous or (unnecessarily) repetitive. Moreover, as the number *x* of the presupposition is known and as the answer gives a number *y*, one may draw a valid conclusion about the remaining ones (*x* a higher number than *y*). In the same vein, if the number of *x* equals *y*, one may draw a conclusion (cases *x* = *y*) leading to definiteness.<sup>26</sup> For example, suppose we have invited 5 speakers to a conference, and that a secretary is in charge of the registration desk. On the basis of (45) – i.e. shared knowledge and our question – the felicitous answers of the secretary can be (45a) or (45d), but not (45b) or (45c) without further discussion.

- (45) A. [Given invited speakers, given a definite set of 5]  
*Combien de conférenciers invités sont-ils arrivés?*  
 how many of speakers invited are-they arrived  
 ‘How many invited speakers have arrived?’  
 B. a. (i) *Trois conférenciers invités sont arrivés.*  
 three speakers invited are arrived  
 ‘Three invited speakers have arrived.’  
 (ii) *Trois sont arrivés.*  
 three are arrived  
 (conclusion: *deux ne le sont pas*)  
 ‘Three have arrived. (conclusion: two have not)’  
 b. #*Il est arrivé trois conférenciers invités.*  
 there is arrived three speakers invited  
 ‘Three invited speakers have arrived.’  
 c. #*Il est arrivé cinq conférenciers invités.*  
 there is arrived five speakers invited  
 ‘Five invited speakers have arrived.’

26. There may be a contradiction if the result is negative (*y* a higher number than *x*).

- d. (i) *Les cinq conférenciers invités sont arrivés.*  
 the five speakers invited are arrived  
 ‘The five invited speakers have arrived.’
- (ii) *Les cinq sont arrivés.*  
 the five are arrived  
 (conclusion: *tous(def) sont arrivés*)  
 ‘The five of them have arrived (conclusion: all have arrived).’

If the secretary answers with (45b) or (45c), we can conclude that she/he has not taken the exact number of invited speakers that should arrive into account (she might not know). Her count is not the problem, but it is not linked to the presupposed set of expected arrivals. Note that in this respect, the indefinite in (45a) behaves identically to the definite in (45d). Still, it is logical that the constituent [trois linguistes] is indefinite: the three out of five that have arrived are not yet identified. Put differently, if a set of invited speakers is given, this specific reading entails a complement set (in the mathematical sense) for which the assertion does not hold: the conclusion in (45a). In the same vein, the definite property of (45d) is derived.

For these data we draw a separate table:

(46)	3 N = N new; Num new; No pre-defined set	3 N = N old; Num new; No pre-defined set	3 N = N old; Num new; Pre-defined set
	✓	Variation: ✓ / #	#
Impersonal construction “Regular” preverbal DP	#	Variation: # / ✓	✓

In this approach, we take it that the properties of the constituent DP are compositionally determined by the properties of the elements contained in it. In particular, a new Number for a presupposed Noun makes the DP sufficiently new to appear in the impersonal construction. In other words, presuppositional nouns do appear in presentative constructions. Conversely, presuppositional nouns with a new non-presupposed Number make the DP sufficiently specific to appear in the non-impersonal construction. In other words, specific nouns do appear in the regular constructions. It is the distinction between “everything new” and “everything presupposed” that is basic for the table. Note that we do not consider (46) to encode a sort of scale; rather, it can be defined by features: [+new, +new], [+new, +presupposed] or [+presupposed, +new], and [+presupposed, +presupposed]. The variation in the middle column is accounted for by the mixed feature-value; a combination of [+presupposed] and [+new] may lead to a generalization with [+presupposed], but also to a generalization with [+new]. We conclude that the ‘very specific’ reading of an

indefinite DP is a reading in which the head noun as well as a contextually determined number of a set are presupposed, while the DP has new information bearing on the Number of the set which has an in itself indefinite interpretation with respect to the presupposed set.

The idea behind (46) is to make a sensible prediction about the criteria guiding the choice between the two constructions, beyond sheer issues of grammaticality. We think the analysis goes a long way, but there are some problematic aspects. There are at least two areas of discussion.

First, most speakers do accept sentences like (47).

- (47) *Il est arrivé trois des (cinq) conférenciers invités.*  
 there is arrived three of-the (five) speakers invited.  
 ‘Three of the (five) invited speakers have arrived.’

These should fall in the first and second column of (46). Under our proposal, (47) can occur with two interpretations. The first one is the interpretation in which the existence of *les conférenciers invités* is new to the context; the second is the interpretation in which the invited speakers may be presupposed / definite, but in which there is no pre-defined number. If we had given (47) as a possible answer in the situation depicted in (45) we would say that it presents the predefined set as a new set which leads to the intuition of an information-repetitive answer.<sup>27</sup>

Second, it has been suggested that a new entity may also occur in the pre-verbal position, as in (48).

- (48) *Regarde! Il y a des traces de pas dans la cuisine: Quelqu’un est entré ici.*  
 ‘Look! There are traces of footsteps in the kitchen. Someone has entered here.’

Our prediction here is that *quelqu’un* has a specific interpretation. And it has, namely the one specific person that left the traces. Put differently, the entity is not new to the context, its existence can be deduced from by the preceding sentence (assuming that only living creatures leave traces and assuming that the nature of the traces are such that they are made by one person [both assumptions are also made by the speaker who utters the sentence with *quelqu’un*]).

27. Given five invited speakers: *Combien de conférenciers invités sont-ils arrivés? Il est arrivé trois des cinq conférenciers invités/Il est arrivé trois conférenciers sur les cinq* ‘Three speakers have arrived out of the five’. We get a feeling of “repetitive” or “restating a presupposition”. It feels as if the answer presents something as new/presentational while evidently the information is not new/presentational in this particular context.

All in all, although there is some space for doubts and discussion, the table in (46) brings out interpretative effects that are useful for differentiating the two constructional possibilities. Of course, because of the unavailability of transitive expletive constructions in French, the subject will always be preverbal with transitive verbs, so that multiple ambiguity necessarily arises:

- (49) *Trois conférenciers invités ont pris un taxi*  
 'Three invited speakers have taken a cab'  
 a. N new, Num new, no predefined set  
 b. N old, Num new, no predefined set  
 c. N old, Num new, predefined set  
 (→ *les autres n'ont pas pris de taxi*)<sup>28</sup>  
 'the others have not taken a cab'

Our analysis predicts that if there is no predefined set, then the indefinite is infelicitous if (and only if) there is a choice between the impersonal construction and a non-impersonal one. This explains the reduced grammaticality of examples like (50).<sup>29</sup>

- (50) a. *?De la viande est arrivée.*  
 of-the meat is arrived  
 'Meat has arrived.'  
 b. *?Des linguistes sont arrivés.*  
 Indef.art. linguists are arrived  
 'Linguists have arrived.'  
 c. *?Des fleurs ont été vendues.*  
 Indef.art. flowers have been sold  
 'Flowers have been sold.'

On the other hand, effectless grammaticality is predicted, if some number can be added and if a reasonable presupposition can be made as to the Number on

28. For this reading, the use of *Trois des conférenciers* is pragmatically preferred.

29. Bosveld-de Smet (2004) cites (i) as being acceptable, but only on a partitive reading and in a context where it is pragmatically inferred that forks are clean.

(i) *Des fourchettes sont sales.*  
 Indef.art. forks are dirty

This corresponds to the analysis presented in the text: if the relevant reading is not available, preverbal indefinites illustrate reduced grammaticality.

the basis of the context. Such seems to be the case in (51), when contrastively compared to (52).<sup>30</sup>

- (51) a. *Quelques étudiants ont dormi dans la salle à manger* → *la majorité non (d'autres dans la salle de bains).*  
 'Some students have slept in the diner → the majority did not (others in the bathroom).'
- b. *Beaucoup de fleurs ont été vendues* → *il en reste.*  
 'A lot of flowers have been sold → there are some left.'
- c. *Beaucoup de viande est arrivée* → *une partie ne l'est pas.*  
 'A lot of meat has arrived → a part has not.'
- (52) a. *Il a dormi quelques étudiants dans la salle à manger.*  
 there has slept some students in the diner  
 'Some students have slept in the diner.'
- b. *Il a été vendu beaucoup de fleurs.*  
 there has been sold lots of flowers  
 'lots of flowers have been sold.'
- c. *Il est arrivé beaucoup de viande.*  
 there is arrived a-lot of meat  
 'A lot of meat has arrived.'

Because of our assumption of a predefined set, usage of the preverbal position in (51) entails that a deduction can be made as to the complement of the set. Because the postverbal position is not related to a predefined set in (52), nothing can be deduced.

Now that we have made clear what the specific interpretation entails, we can return to the discussion of the readings available in inversions. Note that the discussion is not a simple discussion on grammaticality, but concerns the availability of possible interpretations and felicity. Given the closeness of the

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30. The opposition is comparable to the one given in (i) and (ii), cf. Corblin et al. (2004).

- (i) #*Des étudiants sont arrivés en retard. Les autres étaient déjà là.*  
 Indef.art. students are arrived late. The others were already there  
 'Some students arrived late. The others were already there'
- (ii) *Trois étudiants sont arrivés en retard. Les autres étaient déjà là.*  
 three students are arrived late. The others were already there  
 'Three students arrived late. The others were already there'

impersonal construction and locative inversion, consider these two constructions in the same context. In a situation where there is a predefined set, both are infelicitous.

- (53) Given: 20 enfants. Question bearing on the location where they play.  
*Où jouent-ils?*  
 where play-they  
 ‘Where do they play?’
- Dix enfants jouent dans le jardin → les autres ailleurs.*  
 ‘Ten children play in the garden. → the others elsewhere.’
  - #Il joue dix enfants dans le jardin.*  
 there play ten children in the garden
  - #Dans le jardin jouent dix enfants.*  
 in the garden play ten children  
 ‘Ten children play in the garden.’
- (54) Given: 5 scouts. Question bearing on location in the field.  
*Où se trouvent-ils?*  
 ‘Where are they?’
- Trois scouts campent dans la forêt → les autres ailleurs.*  
 ‘Three scouts camp in the forest → the others elsewhere’
  - #Dans la forêt campent trois scouts.*  
 ‘In the forest camp three scouts.’
  - #Il campe trois scouts dans la forêt.*  
 there camp three scouts in the forest  
 ‘Three scouts camp in the forest.’

Locative inversion is infelicitous if the ‘specific’ reading is intended, just as with the impersonal construction. The infelicity stems from the fact that the predefined set allows a deduction about a set for which nothing has been mentioned, while the impersonal construction and locative inversion do not give rise to such a deduction.<sup>31</sup>

31. Note that the deduction argument does not hold if both sets are made explicit: *Dix d’entre eux jouent dans le jardin, et les dix autres dans la cour* ‘Ten of them play in the garden and the other ten in the yard’ (in total 20). Note also that *Dix d’entre eux jouent dans le jardin et dix autres dans la cour* ‘Ten of them play in the garden and ten others in the yard’ is infelicitous in our account – on the basis of the sentence there could be more than 20 children (*dix autres* is not *les dix autres*) which conflicts with the predefined set of exactly 20 children.

As for wh-questions, there generally is much disagreement about intuitions with respect to examples of the type in (55), which contains numbered indefinite DPs.

- (55) a. (\*) *Quel livre ont acheté trois profs?*  
           ‘Which book have bought three teachers?’  
       b. (\*) *Quel livre ont acheté plusieurs profs?*  
           ‘Which book have bought several teachers?’

Interpretatively, this type of question is felicitous in contexts where it is already known that there has been a bunch of professors buying books. Three out of them (apparently) bought the same book – which book was it that this (indefinite) subset of three bought? In other words, if a specific reading can be construed, the question is grammatical. However, if the three professors are new to the context, the question is ill-formed. Hence, the ‘specific’ reading is allowed in this construction, not the ‘low’ reading. This proposal also explains why speakers disagree and hesitate to accept such sentences, the judgments are dependent on the situation they have in mind.

Next consider relatives:

- (56) Given: 5 cigare-smokers, 3 the same brand
- a. *Quelle marque est-ce, ce cigare que fument trois hommes?*  
    which brand is it, this cigar that smoke  
    three men
- b. *Quelle marque est-ce, ce cigare que trois hommes fument?*  
    which brand is-it, this cigar that three men  
    smoke  
    ‘Which brand is it, this cigar that three men are smoking?’
- (57) Given: not smokers, discussion bearing on say price of cigars.
- a. *Le cigare que fument trois hommes au bar coûte vraiment cher.*  
    the cigar that smoke three men at-the bar is  
    really expensive.
- b. *Le cigare que trois hommes fument au bar coûte vraiment cher.*  
    the cigar that three men smoke at-the bar is  
    really expensive  
    ‘The cigar that three man at the bar are smoking is really expensive.’

All readings are accepted, no matter what the properties of the given discourse situation are. This is evidently related to the general consensus on the optionality of DP inversion in relatives. We proceed on the assumption that in general there is no specificity difference related to this inversion.<sup>32</sup>

Finally, consider subjunctives, in particular the case in which there is material following the indefinite subject.

- (58) Given 20 enfants.  
*Où veux-tu qu'ils jouent? (différents endroits)*  
 'Where do you want them to play?'  
 a. #*Je veux que jouent dix enfants dans le jardin et*  
     I want that play ten children in the garden and  
     *dix au grenier.*  
     ten in-the attic  
     'I want that ten children play in the garden and ten in the attic.'  
 b. *Je veux que dix enfants jouent dans le jardin et les autres au*  
     *grenier.*  
     'I want that ten children play in the garden and the others in the  
     attic.'
- (59) Given 2 enfants, Paul et Pierre.  
*Où veux-tu qu'ils jouent?*  
 a. #*Je veux que joue l'un dans le jardin, et l'*  
     I want that play one in the garden, and the  
     *autre au grenier.*  
     other in-the attic  
 b. *Je veux que l'un joue dans le jardin et l'*  
     I want that the-one play in the garden and the  
     *autre au grenier.*  
     other in-the attic  
     'I want that one plays in the garden and the other one in the  
     attic.'<sup>33</sup>

32. Kayne and Pollock (2001) cite *\*Le jour où ont téléphoné trois* 'The day three have phoned' as the relative exhibiting the counter-indefiniteness effect. Our theory predicts that *Trois ont téléphoné* 'Three have phoned' is multiply ambiguous (because of *\*Il a téléphoné trois étudiants*), which would make it possible to link the judgments to the issue addressed for DP-inversion. But, independently of this issue, our analysis is based on the grammaticality of indefinites, as shown above (*L'objet qu'a volé quelqu'un*). Based on sections that follow, we would analyse the example in K&P as involving the 'high' 'topical' reading (see Section 3 on locatives) in combination with the impossibility of a postverbal topic in relatives (see Section 3 on relatives).

33. The 'l' in French is homophonous to the definite article. The general contention seems to be that it is a kind of phonological onset filling rather than the syntactico-semantic indication of



These data suggest once more that the subjunctive should also be compared to the impersonal construction and locative inversion, in the sense that in these cases the ‘specific’ reading may not be associated with the inverted DP, hence triggering preverbal DPs.

At this point we summarize the observations discussed thus far in the following table, where the “New DP” of the previous tables is replaced by the tripartition we made in this section.

(60)	New N; New Num	Given N; New Num	Num+N Specific	Given DP	Gen
Impersonal construction	✓	✓ / #	#	*	*
Locative inversion	✓	✓ / #	#	*	*
Regular + competition	#	# / ✓	✓	Ok	Ok
Regular – competition	Ok	Ok	Ok	Ok	Ok
Wh-questions + inversion	*	*	Ok	Ok	Ok
Relatives + inversion	Ok	Ok	Ok	Ok	Ok
Subjunctive + material	✓	✓ / #	#	*	*
Subjunctive – material	Ok	Ok	Ok	Ok	*

In the next section we will examine in greater detail the links to structure. We proceed on the assumption that mapping theory should remain as simple as possible. Rather than following a theory in which the formulation of mapping is made sensitive or insensitive to the position of the DP, we define the inversions in a way that mapping theory remains as simple as possible.

#### 4. Towards analyses: positions of the DP

We showed earlier that Diesing’s (1992) formalisation suffered from a technical problem by allowing lowering at LF. Before continuing, we separately state the improvement we assume, which is in itself rather straightforward.

##### 4.1. Formulation of the mapping theory

The analysis we proposed above for agreement and TP has the desired independent effect of avoiding LF-lowering for the existential interpretation. In particular, what Diesing called the existential or “low” reading of the indefinite can be linked to the specifier of TP in this analysis, which is the lower position.

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definiteness. One might wonder about this, however, as the phonological environment cannot block insertion if the noun is also present (i.e., why *que l’un vienne* ‘that the one comes’ but not *que l’un garçon vienne* ‘that the one boy comes’). It is independently known that number (the count interpretation) may be combined with a definite article, suggesting that ‘1’ has an interpretative function here (i.e., in English *the one*, not just *one*)

Diesing's "high" readings are associated with a projection higher than the one discussed, (61).

- (61) a.  $[_{TOPP} DP_i \{ \text{Generic, given, specific} \} [_{TP} t_i T+AGR [_{VP} t_i \text{---} ]]$   
 b.  $[_{TP} DP_i \{ \text{Existential} \} T+AGR [_{VP} t_i \text{---} ]]$

Diesing (1992) already noted that the high reading is associated with the notion of topic in the pragmatic literature. As we changed the positions that are relevant for mapping, the TopP in (61a) now has this function, following K&P and other related work by Pollock (e.g., Ambar and Pollock 2002 or Pollock and Poletto 2004). It is natural to assume that givenness and specificity are associated with the Topic Phrase, but this is less so for the generic reading. One is purely semantic, the other is more pragmatic. In Section 4.5 we will present empirical evidence that Topic and generic readings involve different functions/functional projections (Topic < Generic). It is also possible to fully unlink the interpretative properties of the structures from the A-system of the clause in the spirit of Stowell and Beghelli (1997). In such an approach there would be one FP more above TP (giving rise to Topic < Generic < Existential < TP )

#### 4.2. Impersonal construction, locative inversion and regular constructions

Consider again the first four rows of the table in (60).

If there is no syntactic choice, as in the "regular" construction with, for example, transitive verbs, interpretative ambiguity corresponds to structural choice: the subject is in [Spec, TP] or in [Spec, TopP]. General considerations of economy would dictate that high readings are more expensive than low readings. For the construction of the generic interpretation this is straightforward: an additional variable at LF. In combination with the general intuition that constituents that are given or otherwise linked to discourse (like the "specific" interpretation) occupy higher positions than those which do not, this seems to imply that building a link with discourse is computationally rather expensive. This corresponds to independent proposals in the field of binding (Reuland 2001).

The impersonal construction only has "low" readings, but, and this is typical for French, the DP with the "low" reading does not determine agreement. Hence, it does not occupy [Spec, TP]. In this case the low reading is associated with the typical object position (which should then be called 'super-low'); this is confirmed by the facts concerning extraction of *en*, which is a diagnostic for unaccusativity as well as for the syntactic object position. The grammaticality of the examples in (62) (cf. Hulk and Vermeulen 1987) entails that the postverbal subjects behave as syntactic objects (independently of the type of verb); the

syntactic subject in (62d) without *en* is analysed as containing a *pro*; like any pronominal, its antecedent is to be constructed in discourse.

- (62) a. *Il en est arrivé trois.*  
           there of-them are arrived three  
           ‘Three of them have arrived.’  
       b. *Il en joue dix dans le jardin.*  
           there of-them play ten in the garden  
           ‘Ten of them play in the garden.’  
       c. \**Trois en sont arrivés.*  
           three of-them are arrived  
           ‘Three of them have arrived.’  
       d. *Trois sont arrivés.*  
           ‘Three have arrived.’

(62b) shows that *en* is the clitic representing the head noun; the example thus illustrates in another way that the impersonal construction is compatible with presupposed discourse-given nouns. The reading, however, is that of a non-specific simple count, not the specific reading (no implication for others). The specific reading is the reading of the preverbal DP in (62d), but then *en* may not be used, (62c). In (62d) the DP occupies [Spec, TopP].

Locative inversion also only has “low” readings, but, and this is crucial in comparison with the impersonal construction, the DP with the low reading does determine agreement. Hence, it should occupy [Spec, TP]. The standard literature opposes the object position to the subject position, but does not split subjects between [Spec,TP] and [Spec, TopP].<sup>34</sup> If indeed the subject in (62d) occupies [Spec,TopP] and if indeed high readings are disallowed in locative inversions, our prediction is that the *en*-less case is ungrammatical.

- (63) a. \**Dans la forêt dorment trois.*  
           in the forest sleep three  
           ‘Three sleep in the forest.’  
       b. \**Dans le jardin jouent dix.*  
           in the garden play ten  
           ‘Ten play in the garden.’

34. The split is conceptually comparable to Cardinaletti’s (2004) split between SubjP and AGRSP. However, if AGR is uninterpretable (as we assume), we need other instantiations. The question whether her SubjP is entirely equivalent in nature to the TopP of K&P that we make use of, is left open, and in fact raises an unsettled independent issue (the issue of empty subjects vs. empty topics in clauses without an overt subject). We do share Cardinaletti’s view that anteposed locatives appear in SubjP, i.e., our TopP.

On the other hand, if [Spec,TP] is indeed a subject position, extraction of *en* is also predicted to be ungrammatical.<sup>35</sup>

- (64) a. \**Dans la forêt en dorment trois.*  
           in the forest of-them sleep three  
           ‘Three of them sleep in the forest.’  
       b. \**Dans le jardin en jouent dix.*  
           in the garden of-them play ten  
           ‘Ten of them play in the garden.’

These surprising patterns are directly accounted for in our approach, in which the indefinite subject occupies [Spec,TP]. This position is “high” with respect to the object position (hence \**en*), but “low” with respect to [Spec,TopP], the position of given DPs (hence \**pro*<sup>36</sup>). We illustrate this in detail:

- (65) a. Spec,TopP ‘high’ pro \**en*  
       b. Spec,TP ‘low’ \**pro* \**en*  
       c. NP,VP ‘super-low’ \**pro* *en*

The subject in locative inversion determines agreement and for that reason should be in Spec,TP. The subject in locative inversion has an existential reading; this reading in itself may be associated with a position within VP, just as in the impersonal construction, or be associated with Spec,TP itself under the formal change given in (61). As *en* is ungrammatical, the DP cannot occupy a

35. Lahousse (2006) gives some examples, among which *A chaque prière en succédait une autre* ‘After each prayer came another one’. It is striking that these involve elements like *un autre* rather than numerals, which we feel are different. We are unable to test the difference in French, but it can be tested in Dutch:

- (i) *Ik heb er drie gekocht.*  
       I have there three bought  
       ‘I have bought three.’  
       (ii) \**Ik heb er een andere gekocht.*  
           I have there an other bought  
           ‘I have bought another one.’

Out of the different readings pronominal *er* may have (see Bennis (1986) for details), the quantitative reading is excluded with the translation of *un autre*. Perhaps English has a test too: *I bought another one* vs. \**I bought three one(s)*. Independently, *en* in French may also replace more regular PPs.

36. The presence of an empty pronominal in these constructions has been defended at least since Belletti and Rizzi (1981). See also Cardinaletti and Giusti (1991) for Italian. Sleeman (1996) argues that this *pro* indeed is ‘specific’. Our idea also bears on the issue as to how to decide whether a *pro*-dropped subject is definite/topical or not; in the ordinary case (*pro arriva*) topichood and *pro*-ness coincide; in this respect locative inversion is a case in which these two do not coincide.

position inside VP. But, as locative inversion is related to existential readings and typically not to topical readings, TopP may not be used either. Hence, the independent evidence in favor of the position given in (65b) rules out both the use of *en* and the use of a topical *pro*.<sup>37</sup>

With respect to the literature generalizing the syntax of existential constructions and locative inversions (e.g. Hoekstra and Mulder 1990 or Moro 1997), these data show that there is a syntactic contrast between the two constructions beyond the semantic generalization in terms of definiteness.<sup>38</sup> With respect to the analysis of Hoekstra and Mulder (1990), the authors themselves admit that their theory makes incorrect predictions for *en* in locative inversion, based on data in Pollock (1981). They convincingly argue that the inverted subject of locative inversion is not the same as the inverted subject in stylistic inversion, but this forced them to opt for the true object position, which made it impossible for them to explain the ungrammaticality of *en* in locative inversion. Our analysis, however, explains the properties of the inverted subject in locative inversion not by appealing to an object position, but by appealing to the ‘low’ subject position. As has been assumed from the beginning (section 1), the ‘low’ subject position is not the one associated with stylistic inversion in *wh*-questions; hence, the argument against collapsing locative inversion and stylistic inversion can be maintained in full and does not affect our analysis. In fact, this argument supports our approach in which several varieties of remnant movement are proposed. Note that this also implies that locative inversion is neither collapsed with stylistic inversion nor with the impersonal construction; it has an in-between status. Our position is illustrated once more in (66)

(66)	TopP	high readings (Given, Specific & Generic)	‘high’
	TP	existential (New & Non-specific)	‘low’
	VP	existential (expletive replacement; New & Non-specific)	‘superlow’

With respect to the position of the anteposed locative itself, we note a similarity with the position that has been identified as the topic phrase. In the literature, the discussion generally bears on whether the locative is a kind of subject (in Spec,IP, e.g., Hoekstra and Mulder 1990, and Bresnan 1994) or in the C-area licensing an empty category in subject position (e.g., Coopmans 1989). If the

37. Notice that the approach can also explain *\*Ne hanno dormito tre* AND *\*Tre ne hanno dormito*, in both cases the DP is not inside VP (the proper generalisation), while its ordering with respect to the verbal complex is different, suggesting that they occupy different positions, [Spec,TP] and [Spec,TopP] in the approach based on (65). Our approach also predicts that *Tre hanno dormito* is better than *Hanno dormito tre*.

38. Hartmann (2005) deals with the same issue in English, and concludes that locative inversion does not pattern with *there-BE* constructions with respect to (sub-)extraction.

locative occupies [Spec,TopP] and if this position is the position for given DPs and for indefinite DPs with generic interpretation, two predictions are made. The first one is that the locative itself must be specific. This is confirmed: examples with indefinite locations are rather infelicitous,<sup>39</sup> although some additional refinements might be necessary.

- (67) a. \**Dans une forêt habite un ermite.*  
           ‘In a forest lives an hermit.’  
       b. \**Dans un jardin jouent dix enfants.*  
           ‘In a garden play ten children.’

The second prediction is that locative inversion is grammatical if a generic reading is constructed for the locative itself:

- (68) a. *Dans une forêt vivent différents types d’insectes.*  
           ‘In a forest live different types of insects.’  
       b. *Dans un désert ne vit aucun mammifère.*  
           ‘In a desert lives no mammal.’

Finally, (67) should become grammatical if a specific interpretation for the indefinite location can be construed.

- (69) *Imagine a game with different types of people living in different forests, a forest with fairies, one with unicorns, one for a king, ... Dans une (des forêts) habite un ermite. (You might pay dearly if you come in his forest, but you can also earn a special treasure)*

In this sense, [Spec,TopP] defines an intermediate solution to the issue of the position of the locative; it is not the standard subject (the locative is irrelevant for agreement and is not involved in nominative Case), but it is not an operator in the A-bar sense either (the core interpretation of elements in the C-area). In a sense the locative is given, has ‘high’ interpretations, but is neither the subject, nor an operator.

In addition, this suggestion also implies that other elements cannot be topical in locative inversion. If the locative is the Topic, other entities cannot be

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39. Except for the true beginning of a story. In the literature on bare plurals (e.g., Delfitto and Schroten 1991), a clear difference is made between really ‘bare’ examples (e.g., \**Medici hanno ...*) and those with adjectives (e.g., *Politicos corotti ...*). These also improve the indefinite location: *Dans une forêt lointaine vivait un vieil ermite*. If ‘topichood’ is relativized to a gradient property (indefinite+adjective < indefinite bare) examples of this type can also be explained. See also Note 21.

Topic. In this sense, it is logical that regular definite DPs are excluded from the construction.<sup>40</sup>

The syntax of locative inversion deserves additional attention, however. If our proposal above is correct, word order is not yet derived properly. In particular, the question is how to derive (70):

- (70) *Sur la pelouse ont souvent joué des enfants.*  
 on the lawn have often played indef.art. children  
 ‘On the lawn children have often played.’
- [<sub>TopP</sub> Loc<sub>j</sub> Top [<sub>TP</sub> des enfants<sub>i</sub> ont= T+AGR [<sub>v\*P</sub> t<sub>i</sub> souvent joué (t<sub>j</sub>) t<sub>j</sub>]]<sup>41</sup>

For the variant of (remnant) movement of the chunk to a position in between TP and TopP, a functional projection is needed, symbolised by F@P:

- (71) [<sub>TopP</sub> Loc Top [<sub>F@P</sub> [ont souvent joué]<sub>x</sub> F@ [<sub>TP</sub> des enfants t<sub>x</sub> ]]]

We have chosen to use sometimes an identifiable separate type of functional head in order to be able to make distinctions between those Fs for which an interpretative property is established (Tense Phrase and Topic Phrase) and those Fs whose first reason of existence is to host a large chunk, the landing site of the remnant. At some (future) point functional projections of this type must be given an interpretative value. Below, we argue for the relevance of a Focus projection on the basis of other inversions. We speculate that the F@P in (71) can be interpreted in this way. This entails a structural hierarchy Top < Foc < Existential, and implies that the chunk [ont souvent joué] is ‘new information’. This is very close to the more pragmatic value of locative inversion: given a location (topic), at this location newly introduced entities (indefinites) perform non-discourse given actions (new information focus).<sup>42</sup>

Next, note that (71) is obtained by moving an intermediate projection, T’ (i.e., t<sub>x</sub> in (71) is neither a head nor a maximal projection). K&P, however, made use of the intermediate nature of the T’ – in order to exclude stylistic inversion of indefinite DPs. Our point is that the derivation of locative inversion entails

40. This leaves some space for the problematic examples discussed in Section 3. It is excluded in this analysis that *Napoléon* functions as the Topic in *Dans ce lit a dormi Napoléon*, but it is not necessarily excluded that this is a non-topical definite. See also Note 21.

41. In a SC analysis – [<sub>SC</sub> DP PP-LOC] – of the complement of the verb, a trace has to be postulated for the DP subject. This is not a trace subject to particular discussion in this paper. Some reason for this can be distilled from (102)–(103) below.

42. Note that this notion of focus is different from the notion of presentational focus stemming from Rochemont and Culicover (1990) as used by Bresnan (1994) or, more recently, Broekhuis (2005). Their presentational focus is associated with the constituent for which we postulate existential quantification.

remnant movement of a chunk, while leaving behind the indefinite DP. If the chunk should be a maximal projection, we could adopt the structure indicated above by referring to Beghelli and Stowell, but then the argument of K&P no longer holds. There is an issue here.

#### 4.3. Direct *wh* questions: Complex inversion or DP inversion?

For the opposition between the impersonal construction and the “regular” construction we have argued that the “regular” construction must be used if the impersonal construction is prohibited for independent syntactic considerations (a negative value for the property allowing transitive expletive constructions). As a consequence, the “regular” construction either allows anything or only has a specific range of interpretations.

For the *wh*-question system, the same idea can also be followed. We argue that this has desirable effects, but that it is not sufficient. If for some reason the postverbal DP is excluded, then the complex inversion with a preverbal DP should be used. Given the restriction on the number of postverbal DPs at surface level (the restriction stated in Section 1) this explains the use of the complex inversion for transitive verbs:

- (72) a. \**Où a mis Jean les livres / les livres Jean?*  
           where has put John the books / the books John  
       b. *Où Jean a-t-il mis les livres?*  
           where John has-he put the books  
           ‘Where did John put the books?’

The prediction is that complex inversion, like the “regular” construction, allows for all “high” readings. This is confirmed by the following data:

- (73) Generic reading  
       a. *Quel gâteau quelqu’un mange-t-il quand il aime la*  
           which cake someone eats-he when he likes the  
           *crème?*  
           cream  
           ‘Which cake does someone eat when he likes cream?’  
       b. *Quelle robe une femme porte-t-elle lors de son*  
           which dress a woman wears-she during her  
           *mariage?*  
           wedding  
           ‘Which dress does a woman wear during her wedding?’



## (74) Given DPs

- a. *Où Jean est-il allé?*  
where John is-he gone  
'Where has John gone?'
- b. *A qui Marie pense-t-elle?*  
of whom Mary thinks-she  
'Who does Mary think of?'

## (75) Specific readings

- a. *A quel endroit trois (des) scouts campent-ils?*  
at which place three (of-the) scouts camp-they  
'At which place do three (of the) scouts camp?'
- b. *Quel article cinq (des) étudiants n'ont-ils pas étudié?*  
which article five (of-the) students have-they not  
studied  
'Which article have five (of the) students not studied?'
- c. *Dans quelle ville aucune Française ne voudrait-elle habiter?*  
in which city no French woman  
neg-would-like-she live  
'In which city would no French woman like to live?'

If the hypothesis entertained above is correct, the prediction would be that indefinite discourse-new DP's and simple counts are also accepted in complex inversion, as opposed to the DP inversion. The counter-indefiniteness effect does not occur with complex inversion simply because it is the only way out: inversion of the DP is blocked for independent syntactic reasons. The crucial question therefore is what the independent syntactic reason actually is. In the proposal of K&P, the syntactic reason is of a theory-technical nature: If remnant movement moves a maximal projection, the Specifier of the projection that is moved cannot be left behind.

- (76) a. [<sub>TP</sub> Indef [<sub>T'</sub> est allé où ...]].  
\**Où est allé quelqu'un* (would be movement of  $X' = T'$ )  
where is gone someone
- b. [<sub>TOPP</sub> Gen/given<sub>i</sub> Top [<sub>TP</sub> t<sub>i</sub> est allé où ...]].  
*Où est allé Jean* (is movement of  $XP = TP$ )  
where is gone John  
'Where has John gone to?'

With respect to the mapping theory, this would argue in favor of (70) rather than Beghelli and Stowell's proposal. That is, if the indefinite is moved to a

separate functional head for existential interpretation, movement of a remnant maximal projection would be possible while leaving the indefinite behind. We think that there is more at stake, and dedicate a separate paragraph to the issue.

4.3.1. *Intermezzo: Postverbal indefinites in varieties of inversion.* As has been shown in (76), the theory of remnant movement defended in K&P uses properties of the core of the computational system to derive the impossibility to use indefinites in postverbal positions in wh-questions. However, as we have shown in Section 3, in all inversions postverbal indefinites are allowed except for the wh-questions. We repeat the facts for the sake of convenience in (77).

- (77) a. \**Quel roman a lu quelqu'un?*  
           which novel has read someone  
           'Which novel has someone read?'  
       b. *L'objet qu' a volé quelqu'un*  
           the object that has stolen someone  
           'The object that someone has stolen'  
       c. *Dans la forêt habitait un ermite.*  
           'In the forest lived an hermit.'  
       d. *J'aimerais bien que vienne quelqu'un.*  
           I would-like well that come someone  
           'I would like that someone comes.'

There are basically two ways of approaching the issue. The first one is to maintain the analysis for (77a) and to propose therefore that the series (77b–d) are not derived via remnant movement. This hypothesis is at odds with the assumptions we made, at least for agreement: the indefinite is relatively high in the structure; eventually, all postverbal subjects in (77) will be derived via remnant movement in our analysis. The second possibility is to allow the theory of remnant movement to leave indefinites behind and to propose that (77a) is subject to another analysis.

We will elaborate the second possibility in what follows. In essence, we believe that there is no hard computational issue in remnant movement theory in a way that leaving indefinites behind is excluded by the internal operation of the computational system. We believe that another factor plays a role in wh-questions.

4.3.2. *Returning to the issue.* Kampers-Manhe et al. (2004) stated in a global way that "you cannot pose questions bearing on entities that you introduce in discourse while posing the question", and in this way gave a judgment different from the one we gave in the introduction. The judgment issue is spelled out in (78):

- (78) a. K&P and Section 2 of this paper  
*Quel livre quelqu'un a-t-il lu?*  
 which book someone has-he read
- b. K et al. (2004)  
 \**Quel livre quelqu'un a-t-il lu?*
- c. K&P and Section 2 of this paper and K et al. (2004)  
 \**Quel livre a lu quelqu'un?*  
 which book has read someone  
 'Which book has someone read?'

Under the proposal above ('revert to complex inversion if DP inversion is blocked'), complex inversion is predicted to be possible with indefinites. Syntax proper is capable of generating the structure; from a strictly syntactic point of view, the sentence is fine, as shown by (78a). Note that the intermezzo challenged the technical explanation of (78c), but not the possibility to use complex inversion. On the other hand, the more pragmatic statement that the indefinite subject in complex inversion does not have a true discourse-introductory reading gives rise to the judgment in (78b). The paradoxical situation can be resolved, we propose, by assuming that indeed (78b) is ungrammatical in the true discourse-new interpretation of the indefinite (just like (78c)), while (78a) is grammatical but with a slightly different interpretation of the indefinite.

The statement in K et al. (2004) suggests that the counter-indefiniteness effect is a global pragmatic characteristic of wh-questions in general rather than a construction-specific prohibition. The statement itself should be interpreted rather weakly, for several reasons. First, as shown by (79a), inverted yes/no questions may bear on impersonal constructions. Second, as shown by (79b), wh-questions may combine with indefinites in the impersonal construction, in particular with adjuncts.<sup>43</sup>

- (79) a. *Est-il venu quelqu'un?*  
 is-there come someone  
 'Did someone come?'
- b. *Jusqu'à quelle heure jouera-t-il des jeunes dans la rue?*  
 until at which hour will-play-there indef.art. youngsters  
 in the street  
 'Until how late will youngsters play in the street?'

This means that the 'superlow' reading is allowed in wh-questions. The restriction in K et al. (2004) should at least bear on preverbal 'low' readings only.

43. Recall that the impersonal construction may not involve transitives. Hence \**Quel livre a-t-il acheté des profs* is explained independently.

Third, other types of questions in French with preverbal subjects do allow for indefinites:

- (80) a. *Est-ce que quelqu'un a acheté le livre signé de*  
 is-it-that someone has bought the book signed of  
*Sartre?*  
 Sartre  
 'Has someone bought the book signed by Sartre?'  
 b. *Qu'est-ce que quelqu'un a vendu?*  
 what-is-it that someone has sold  
 'What has someone sold?'

So, from this point of view, the counter-indefiniteness effect is not a restriction on questions or wh-questions, but holds only for wh-questions with DP inversion. Reconsider then the contrast given in the introduction with the addition of the *est-ce que* type of question for comparison.<sup>44</sup>

- (81) A: *Quelqu'un a acheté un livre*  
 'Someone has bought a book'  
 B: a. *\*Quel livre a acheté quelqu'un?*  
 which book has bought someone  
 b. *Quel livre quelqu'un a-t-il acheté?*<sup>45</sup>  
 which book someone has-he bought  
 c. *Quel livre est-ce que quelqu'un a acheté?*  
 which book is-it-that someone has bought  
 'Which book did someone buy?'

The interpretation of *quelqu'un* in (81Bb) is identical to its interpretation in (81Bc), which is identical to its interpretation in (81A). In this sense an indefinite interpretation of the DP is possible in complex inversion. But in this particular discourse fragment – the sentences uttered by B – the *quelqu'un* in the question is not discourse-new, it is discourse-given. The least we can say is that the indefinite DP in complex inversion has a repetitive property. It is therefore tempting to say that it has a specific interpretation, but this cannot be the case. We showed above that specific interpretations are allowed in wh-questions with DP inversion, so if we were to claim that the DP in (81Bb) and (81Bc) is "specific", we would automatically be led to include (81Ba) as grammatical.

44. Some even prefer (81b) over (81c).

45. For independent reasons, *\*que quelqu'un a-t-il acheté* is ungrammatical. See Munaro and Pollock (2005) on *est-ce que* questions in general.

The problem then is how to derive (82Bb) while circumventing the effects of the TopicPhrase. As has been shown by Pollock (2003), if syntax allows movement of TP including traces, syntax should also allow movement of TP containing a subject, even without traces, i.e., it should allow movement of XP where XP happens to be TP. In that case, the following derivation is allowed:

(82) [WhP [F@P TP<sub>i</sub> F@ [... t<sub>TP</sub>

This option fits nicely with the technical details of K&P: if *quelqu'un* cannot be left behind, it still can be taken along if the constituent it is part of is moved. Now, let us make the following step in the reasoning. If wh-questions make use of the topic phrase, the F@ of (82) may simply be the TopicPhrase; in that case the entire TP is topical, 'given'.

(83) [WhP [TopP TP<sub>i</sub> Top [... t<sub>TP</sub>

Then, consider the following discourse and make the final step:

- (84) A: What happened?  
 B: *Quelqu'un a volé un tableau de Rembrandt.*  
 'Someone has stolen a painting by Rembrandt.'  
 A: Given (!!)  
 $\exists e, e = \text{steal} \ \& \ \exists x, x = \text{someone} \ \& \ \exists y, y = \text{painting by Rembrandt}$   
 [WhP [TopP [TP<sub>i</sub> *Quelqu'un a volé un tableau de R*] Top [... t<sub>TP</sub>  
 (i) plus wh-movement  
 (ii) plus movement of *quelqu'un* (not entirely licensed)<sup>46</sup>  
 (iii) spelling-out of trace-*quelqu'un* as a clitic (repairs the licensing)  
 $\rightarrow$  *Quel tableau de Rembrandt quelqu'un a-t-il*  
 which painting of Rembrandt someone has-he  
*volé?*  
 stolen  
 'Which painting by Rembrandt has someone stolen?'

Speaker A takes the event with the two arguments to be given. This corresponds directly to the intuitions expressed above. On the one hand, the indefinite in the question is repetitive and in that sense given, but on the other hand, the indefinite does not have the specific interpretation and is not the topic itself.

46. In the older analyses, the DP was moved into the C-area of the root clause, with various explanations in terms of the ECP for the necessity to license the trace in subject position. In our analysis, the DP is SUB-extracted out of the specifier position of a functional head; DP<sub>i</sub> [TopP [TP t<sub>i</sub>] Top]. This movement falls out as illicit in the definition of closeness entertained by Cinque (2004). This is sufficient to trigger double spell-out of the DP.

In (84) the indefinite is not topical, but part of the larger topic; it retains its indefinite value, without being introduced.

The intuition expressed in K et al. (2004) “do not pose questions about entities you introduce in discourse while posing the question” now receives a positive formulation, as a condition on wh-questions:

- (85) Wh-questions positively bear on Topics.

Topics can be entities (DP inversion with given DPs) or entire clauses (complex inversion with whatever DP as a subject). Indefinites are excluded with DP inversion, but they are allowed in complex inversion. Definites are readily accepted as topics in DP inversion, just as they are in complex inversion. But this also entails that the definite DP in complex inversion is not the Topic itself, but rather part of the topical material.

Independent confirmation comes from the case of *pourquoi*. It is well known that *pourquoi* blocks DP inversion with definites also.

- (86) a. \**Pourquoi est partie Marie?*  
           why is left Mary  
           ‘Why has Mary left?’  
       b. *Pourquoi Marie est-elle partie?*  
           why Mary is-she left  
           ‘Why did Mary leave?’  
       c. *Pourquoi quelqu’un a-t-il ouvert la fenêtre?*  
           why someone has-he opened the window  
           ‘Why did someone open the window?’

We are able to explain the behavior of *pourquoi* by stating that this particular element bears on the subset of presupposed/given events only, rather than on topics in general.

- (87) Whereas wh-questions bear on any Topic (DP or TP), *pourquoi* positively bears on a Topical TP.

The semantic correlate is that the adverb *pourquoi* operates on clauses, rather than on participants or on relations between participants and events. Put differently, the question bears on the reason of [Mary leaving] in (86b), and not on the reason of why [Mary] left. In our analysis, definite DPs in complex inversion are not topics themselves, so that with *pourquoi* they are not the topical DP the question bears on.<sup>47</sup>

47. This explains the following data, with a normal intonation pattern.

- (i) *Pourquoi Jean a-t-il ouvert la fenêtre?*  
       ‘Why did John open the window?’

At this point, we have isolated the independent property of wh-questions that sets them apart from the other inversions. Indefinites are excluded in DP inversion not because the computational system works in a way that excludes leaving indefinites behind, but because wh-questions positively bear on given material.

With respect to DP inversion, the idea behind the proposal by K&P for the counter-indefiniteness effect is in fact retained. If the indefinite always remains in TP and cannot be moved to TopP (the crucial idea behind K&P), then the general condition in (85) is violated. Hence, indefinites are excluded by (85). But if the entire TP is moved (an early step of the derivation of complex inversion), the indefinite DP in [Spec,TP] is taken along, so that it will never appear in a final position, but can appear in complex inversion.

#### 4.4. Subjunctive clauses

In table (60) the most striking fact is the absence of the generic reading. This cannot simply be due to the fact that subjunctive inversion typically occurs in embedded clauses, as embedded clauses do allow for generic readings

- (88) *Il disait qu'un homme politique assume ses responsabilités.*  
'He said that a politician assumes his responsibilities.'
- (89) a. *Elle apprécie qu'un homme fume.*  
'She appreciates that a man smokes.'  
b. \**Elle apprécie que fume un homme.*  
she appreciates that smokes a man  
'She appreciates that a man smokes.'

This seems to be an important fact for the system of functional heads. In Diesing (1992) and in the analysis we have proposed while using her approach, it is taken for granted that the generic reading and the given/specific reading of the indefinite are associated with one and the same projection, TopP. Subjunctives now suggest that this might not be the case. In a system with an identical position for both generic indefinites and topics, there is no obvious way

- 
- (ii) a. *Parce qu'il faisait froid*  
'Because it was cold'  
b. \**Parce que Paul n'avait pas envie de le faire*  
'Because Paul didn't feel like doing it'
- (iii) *Qu'a ouvert Jean?*  
'What did John open?'
- (iv) *Il a ouvert la fenêtre.*  
'He opened the window.'

to derive the restriction from this one position. Subjunctives could then show the need to separate the functional projection for generic interpretation from a functional projection for topics. Conceptually, this move is sound. If functional heads have a function at the conceptual-intentional interface, it is clear that building a generic interpretation for an indefinite DP is interpretatively quite different from indexation or building a link with discourse-given entities or events. The one function is a true semantic operator, the other is an indexation type operation. The subjunctive cases could supply empirical evidence that the two projections could be separate ones. However, we will show that this is not strictly necessary in the analysis of subjunctive clauses; but it will appear to be the case for relatives.

Let us turn our attention to the more general properties of subjunctive inversion. In terms of information structure with subjunctives, the following question-answer pairs obtain, as shown in Kampers-Manhe (1998):

- (90) a. *Que veux-tu que Paul fasse?*  
           ‘What do you want Paul to do?’  
       b. \**Je veux que parte Paul.*  
           I want that leave Paul  
           ‘I want Paul to leave.’  
       c. *Qui veux-tu qui parte?*  
           ‘Who do you want to leave?’  
       d. *Je veux que parte Paul.*  
           I want that leave Paul  
           ‘I want Paul to leave.’

In the (a) and (b) case, Paul is ‘given’ and occupies the topic position of the embedded clause. In that case, the postverbal position is excluded. In the (c) and (d) case, Paul is definite, new in some sense, but not subject to existential quantification. It is typically said that *Paul* functions as the ‘new information focus’. Recasting the analysis in current terms implies the use of a Focus Phrase.

With respect to the derivation, it is clear that the linear orderings in (90) illustrate a leftward position for topics and a rightward position for focussed DPs. In the remnant movement approach, this entails that the Topic projection is higher than the Focus projection. The system should be devised in such a way as to exclude inversion of topical DPs, while allowing inversion of focused DPs.

- (91) a. [TopP given DP [FocP Focus DP [TP]]]  
       b. *Je veux que* [TopP *given-Paul<sub>i</sub>* [TP *t<sub>i</sub> parte*]]  
           I want that Paul leaves  
       c. *Je veux que* [FocP *focus-Paul<sub>i</sub>* [TP *t<sub>i</sub> parte*]]  
           I want that Paul leaves



- d. *Je veux que* [TopP [TP t<sub>i</sub> *parte*] [FocP *focus-Paul<sub>i</sub>* t<sub>TP</sub>]]  
 I want that leaves Paul

Building on the movement possibilities we needed independently above, (remnant) movement of TP to [Spec,Top], there is a high landing site for the remnant if the DP occupies a lower position, but there is no high landing site for the remnant if the DP already occupies the highest position. In other words, if the DP subject is the Topic, no other constituents may be moved to the topic projection; this DP subject is always preverbal. If the DP subject is Focus and if Focus is preceded by the Topic Phrase, material may move into this Topic Phrase, thus generating a postverbal position for the focused DP. On the pragmatic level, we would say that the non-focus part of the utterance is the topic part (of the utterance). As an illustration of the approach, we give (92).

- (92) A: *On a de grand déficits. J'aimerais bien que vous renvoyiez quelqu'un.*  
 'We have great deficits. I would like much you to fire someone.'  
 B: *D'accord, je vais renvoyer quelqu'un. Qui voulez-vous*  
 okay I go fire someone who want-you  
*qui soit renvoyé?*  
 that be fired  
 'Okay, I will fire someone. Whom do you want me to fire?'  
 A: given (!!)  
 $\exists e, e = \text{be fired} \ \& \ \exists x, x = \text{someone} \ (\& \exists y, y = B \text{ (implicit)})$   
*Je veux que soit renvoyé Paul.*  
 I want that be fired Paul  
 'I want Paul to be fired.'

[TopP [TP x soit renvoyé] Top [FocP Paul<sub>x</sub> Foc [[ t<sub>TP</sub>

With respect to the information structure approach, it can be added that the preverbal position of the 'new information focus' DP is also allowed, but that in that case an extra boundary tone must be put on the preverbal subject, as mentioned in K et al. (2004).<sup>48</sup> The fact that a regular preverbal DP in subjunctives is topical also explains the impossibility of inverting the indefinite DPs with a generic reading. If, as Diesing implicitly assumed, the generic reading and the topichood of the DP coincide in one functional projection, it is expected

48. (i) *Qui veux-tu qui parte?*  
 'Who do you want to leave?'

(ii) *Je veux que PAUL parte.*  
 'I want Paul to leave.'

that an obligatory preverbal position of topics includes the impossibility of inverted generic DPs. Thus, although the split between two projections is sound, as suggested in the beginning of this paragraph, the empirical evidence is not sufficient for the moment. Put differently, the generic reading does not pattern with the focused DP, it patterns with the topical DP – but if topical DPs cannot be inverted in subjunctives, neither can generic DPs.

The notion of topic-hood sheds another light at the definiteness/indefiniteness properties of the subjunctive inversion, which were quite puzzling above. The relevant part of the table is repeated here for the sake of convenience.

Subjunctives	New DP	Given DP
+ following material (PP/Adv)	Ok	*
No following material	Ok	Ok

The first column is explained by the fact that the situation is a situation of ‘all focus’, hence without there being a topic. The relevant situation is spelled out in (93).

- (93) *Que veux-tu?*  
 ‘What do you want?’
- a. *Je veux que vienne quelqu’un.*  
 I want that come someone  
 ‘I want someone to come.’
- b. *Je veux que jouent des enfants dans le jardin.*  
 I want that play indef.art. children in the garden  
 ‘I want children to play in the garden.’
- c. *Je veux que viennent des linguistes à nos réunions.*  
 I want that come indef.art. linguists to our meetings  
 ‘I want linguists to come to our meetings.’

This is the class of inversions for which we noted that, empirically, they pattern with locative inversion and the impersonal construction. Indefinites are allowed in subjunctives just as they are in locative inversion and the impersonal construction.<sup>49</sup>

49. Note that a situation of ‘all focus’ does not exclude definites (if they are not followed by a PP): *Que veux-tu? Je veux que parte Paul.* That is, ‘all focus’ explains the first column, but the scope of the phenomenon ‘all focus’ is larger than just the first column. With respect to the analysis, these cases are best analysed with the definite DP in [Spec,TP] and a TP-remnant containing the verb in [Spec,FocP]. In these cases the definite DP is not the ‘topic’ either.

The second column can now be explained by narrow Focus on the constituent, as illustrated in (94).

- (94) *Qui veux-tu qui V?*  
 ‘Who do you want that V?’
- a. *Je veux que parte Paul.*  
 I want that leave Paul  
 ‘I want Paul to leave.’
  - b. \**Je veux que joue Paul dans le jardin.*  
 I want that play Paul in the garden
  - c. \**Je veux que viennent les linguistes à nos réunions.*  
 I want that come the linguists to our meetings.

With respect to the derivation, (94) is explained by the system proposed above. If the postverbal position of the focused DP is due to remnant movement of the TP, the TP takes along all other material; hence, there can be no material following the focused DP. It explains the “final” position noted by Kampers-Manhe (1998), as shown in (95).

- (95) a.  $[_{TopP} [parte]_x [_{FocP} Paul_i [_{XP} t_i t_x ]]]$   
 b. \* $[_{TopP} [joue]_x [_{FocP} Paul_i [_{XP} t_i t_x \dots \text{dans le jardin} \dots ]]]$

That is, if the XP (the complement of the constituent which contains the definite DP as the Focus) is moved leftwards, this movement of XP takes along everything in it, such that the PP may not be left behind.<sup>50</sup>

With respect to the derivation of (95), the analysis should not only account for the availability of post-DP material (the PP complement), but also for the pre-DP position of the other material in the TP. Above we noted that wh-questions made use of remnant movement of the TP targeting TopP. Now, these cases are cases of ‘all focus’. It is logical that the remnant movement of the TP targets FocP. Note that the specifier position of the Focus projection is not occupied by the indefinite; the indefinite stays in Spec,TP. Hence:

- (96) *Je veux que*  $[_{FocP} [vienne]_x \text{Foc } [_{TP} \text{quelqu'un } t_x \dots ]]$

Stated somewhat more pragmatically, the new information uttered in the subjunctive is the wish of an event, the event of someone coming. Note that there

50. Taking along the PP is predicted to be possible: *Je veux que joue dans le jardin Paul*, but it is not as this sentence is ungrammatical. Examples of this type might be constructed against a rightward movement analysis, but as our analysis does not explain their ungrammaticality either, the issue does not differentiate among different proposals. From a different perspective, the possibility of taking along a PP is attested with shifts of truly heavy DPs, as in so-called “elaborative inversion”.

might be a problem for existential quantification from the semantic point of view in this case – we leave aside the question to determine whether existential quantification is possible for entities involved in a future event, an event that has not actually taken place. For syntax we keep the indefinite meaning and position.

The movement to the specifier of Foc as in (96) generates two different additional questions. First, it cannot simply be V-movement to the head of Foc, due to the fact that the entire remnant projection is moved. We predict that a chunk must be moved; this prediction is borne out in (97).

- (97) a. *Je doute qu'aient souvent joué des enfants*  
 I doubt that have often played indef.art. children  
*dans ce jardin.*  
 in this garden  
 'I doubt that children have played in this garden.'
- b. *Elle doute que soient régulièrement venus des*  
 she doubts that be regularly come indef.art.  
*psychologues à nos reunions.*  
 psychologists to our meetings  
 'She doubts that psychologists have regularly come to our meetings.'
- c. *Je veux que soient distribués des prospectus par*  
 I want that be distributed indef.art. leaflets by  
*les enfants.*  
 the children  
 'I want that leaflets be distributed by the children.'

The other and more surprising fact illustrated in (97) is that in this case PPs may be following the DP. As shown above in (95), remnant movement may not leave behind PPs. For the examples with a post-DP PP-complement, it is possible to resort to prior movement of the PP, as a variant of topicalization<sup>51</sup> – in a way which is accepted independently for the wh-question system in K&P – as illustrated in (98). In fact, there are (at least) two ways to go from that point; these are given in (99) for (97c).

- (98) [*par les enfants* [<sub>TP</sub> *des prospectus soient distribués*]  
 by the children indef.art. leaflets be distributed
- (99) a. Movement of the remnant containing the verbal complex, leaving behind the indefinite DP + subsequent remnant movement to FocP

51. A variant of topicalization in the lower portions of the structure (a VP-adjunction-type landing site).

- (i) [par les enfants [<sub>F@P</sub> [soient distribués]<sub>x</sub> F@<sub>[TP des prospectus t<sub>x</sub>]]]</sub>
- (ii) [<sub>FocP</sub> [soient distribués des prospectus]<sub>y</sub> Foc [par les enfants t<sub>y</sub> ]]]
- b. Movement of the indefinite DP to FocP + subsequent remnant movement to Top.
  - (i) [<sub>FocP</sub> des prospectus<sub>i</sub> [par les enfants [t<sub>i</sub> soient distribués]
  - (ii) [<sub>TopP</sub> [soient distribués]<sub>x</sub> [des prospectus [ par les enfants t<sub>x</sub> ]]]]

In both possibilities of (99), word order is derived properly.<sup>52</sup> Rather than choosing the correct derivation, we take it that both are possible structures for this order, but that each one reflects a different reading. In (99a i) the Focus is the chunk *soient distribués des prospectus*. Hence, (97c) is a possible answer to question (100a). In (99b ii) the focus is on *des prospectus* only, hence it can be an answer to question (100b)

- (100) a. *Que veux-tu qui soit fait par les enfants?*  
‘What do you want to be done by the children?’
- b. *Que veux-tu qui soit distribué par les enfants?*  
‘What do you want to be distributed by the children?’

Note that in the case of (100b), the indefinite DP has a ‘narrow focus’ reading. This is not in conflict with our earlier data in (94).<sup>53</sup>

There is an alternative which also has its attractive properties. Hoekstra and Mulder (1990) proposed an SC analysis for impersonal construction and locative inversion, given in (101). With this SC, it is possible to derive the word order in the embedded clause of (97c) by moving it to Spec,TP, as in (102).

- (101) *Il joue* [<sub>SC</sub> *des enfants dans le jardin*]  
there play indef.art. children in the garden  
‘Children play in the garden’

52. It is not fully clear why prior fronting of adverbial material interacts with indefinites. That is, why is (99) only possible with indefinite DPs? We tentatively suggest that there is a generalization with patterns of scrambling. It is well known in the literature on Dutch (since de Hoop 1992) that adverb positions interact with properties of (in)definiteness. The descriptive generalisation is that the order DP (def) > adverb exists alongside adverb > DP (indef). In other words, an adverb regularly precedes an indefinite DP, but not a definite one in the analysis of what is called ‘ordinary’ scrambling. The issue is linked to what we will note in the conclusion: further research might be necessary to distinguish ‘low’ topics from ‘high’ topics and ‘low’ foci from ‘high’ foci. In this paper, our analyses are based on the distinction between ‘high’ and ‘low’ readings of subjects. The theory of scrambling basically shows that this distinction also plays a role in the lower parts of the structure.

53. That is, (100b) is parallel to *\*Je veux que soit distribué quelque chose par les enfants*.

- (102) a. [TP [SC des enfants dans ce jardin] aient souvent joué t<sub>SC</sub>  
 b. [FP [aient souvent joué]<sub>x</sub> [TP [SC des enfants dans ce jardin] t<sub>x</sub>]]

This alternative, however, can only capture a subset of the cases in which there is lexical material following the focused DP. We are not aware of any proposals entailing an SC analysis for a *by-phrase*, like *par les enfants* in (97c). Worse, as shown in Kampers-Manhe (1998) and K et al. (2004), the narrowly focused indefinite DP may also be followed by simple adverbs, as shown in (103).

- (103) *Je veux que partent trois étudiants immédiatement.*  
 I want that leave three student immediately  
 'I want three students to leave immediately.'

Therefore we prefer the derivations given in (99) to the one given in (102).

This concludes our discussion of the subjunctive. If the DP is topic, inversion/remnant movement is prohibited. If the indefinite DP has a generic reading, it patterns with the topical DP and cannot be inverted. If the definite DP is focused, remnant movement of the TP is possible, but not obligatory. It leaves behind a definite DP. If there is an indefinite DP, the sentence can be 'all focus', and illustrates remnant movement to FocP, leaving behind the indefinite. An indefinite DP can sometimes also be 'narrow focus' such that it is moved to FocP, but in that case lexical material may follow the indefinite, such that the derivation has to resort to a movement operation of this material prior to remnant movement.

As we have now reached the conclusion that Focus is involved, it is useful to add that our model is based on the assumption that syntax generates word order and that the structure is passed to the PF-branch of the grammar; at this later level accenting and intonation are computed. In this respect it is relevant to state explicitly that direct association of a boundary tone (Kampers et al. 2004) or, more neutrally stated, phonological focus, is possible with the structures given. Stress falls on the constituent occupying [Spec,Foc]. In (97c) above, as an answer to both questions in (100), the phonological correlate of the Focus property is associated with the constituent *des prospectus*.

#### 4.5. Relatives

In the preceding sections we have shown that taking the readings of the DPs into account entails that the syntax of the constructions involved all have their own typical derivation. On the other hand, all constructions except for the impersonal construction exhibit some variant of remnant movement.

Again, if one takes into account the readings of the DPs, the relative clause does not pattern like the other constructions. It is different from the wh-

questions in that the relative clause allows for postverbal indefinites; it is different from the subjunctive in that the relative clause allows for generic readings; it is different from the impersonal construction and locative inversion as definites are allowed. The conclusion for relatives is that there are no restrictions, neither on definites, nor on indefinites, and that the generic reading is possible. In a sense then, postverbal subjects in relatives seem to illustrate the ‘pure’ option of free inversion. “No restrictions” in the preverbal position, and optional inversion still has the property of “no restrictions”. Therefore, there do not seem to be any problems. Standard varieties of remnant movement can derive the order.

- (104) a. *La maison qu’a construite Jean*  
 the house that has built John  
 ‘The house that John has built’  
 $C [_{F@P} [a \text{ construite}]_x F@ [_{FP} \text{ Jean } t_x ]]$
- b. *L’objet qu’a volé quelqu’un*  
 the object that has stolen someone  
 ‘The object that someone has stolen’  
 $C [_{F@P} [a \text{ volé}]_x [_{TP} \text{ quelqu’un } t_x ]]$

An additional question arises, however, if one thinks of the nature of the F@P. As we have shown for the subjunctive, the F@ could be associated with Focus or to Topic. We argue here that in fact the same patterns are used.

First, as with subjunctive clauses, if a Topic reading of a definite DP is intended, the inversion is blocked. The data in (105) (adapted from Gutiérrez-Bravo 2005) point at exactly this property.

- (105) *Je sais que mon prof a écrit beaucoup de livres, mais je cherche l’article*  
 ‘I know that my professor has written lots of books, but I am looking for the article’
- a. *que mon prof a écrit.*  
 that my professor has written
- b. *\*qu’a écrit mon prof.*  
 that has written my professor

Similarly, in Kampers-Manhe et al. (2004) we find the following data:

- (106) *Que sont devenus les étudiants dont Bernard s’est occupé?*  
 ‘What has become of the students Bernard took care of?’
- a. *Les étudiants dont s’est occupé Bernard ont réussi.*  
 the students of-whom se.- is taken care Bernard have passed

- b. *Les étudiants dont Bernard s'est occupé ont réussi.*  
the students of-whom Bernard se.- is taken care have passed  
'The students Bernard took care of have passed.'
- c. #*Les étudiants qu'a soignés Bernard ont réussi.*  
the students that has treated Bernard have passed
- d. *Les étudiants que Bernard a soignés ont réussi.*  
the students that Bernard has treated have passed  
'The students Bernard has treated have passed.'

In these examples, the givenness of the verb is the crucial differentiating factor. If what we call the "chunk" is entirely given, the subject may occur postverbally. If, however, only the DP is given, then it must remain in the preverbal position. These data positively show that topics must remain in preverbal position. On the other hand, this does not yet positively show that the inverted DP is focus. What is then the difference between (106a) and (106b)? Consider a situation in which we would like to obtain data about the relative success of the students at the exams in order to evaluate the relative success of the two teachers, who are Paul and Bernard.

- (107)
- a. *Les étudiants dont s'est occupé Bernard ont tous réussi.*  
the students of-whom se-is taken care Bernard have all passed
  - b. *Les étudiants dont Bernard s'est occupé ont tous réussi.*  
the students of-whom Bernard se.-is taken care have all passed
  - c. *Les étudiants dont BERNARD s'est occupé ont tous réussi.*  
the students of-whom Bernard se-is taken care have all passed  
'The students Bernard has taken care of have all passed.'

Answers (a) and (c) suggest that Paul did not function as well as Bernard; answer (b) on the other hand is neutral in this respect. The inverted structure has the flavor of opposition between the two teachers, just as the accented preverbal structure. Put differently, (a) and (c) imply that the statement only holds for Bernard (and not for Paul); the "only" part of the meaning recalls Focus.<sup>54</sup>

54. Without too many technical details: only with respect to Bernard it is true that all students passed.



Without this additional flavor, the subject is preverbal and just the topic, one of the two given possible topics in the relevant discourse.

We conclude that the Focalization strategy, initially devised for subjunctives, also holds in relatives. Note that we do not claim that topics may become foci; our claim is simpler: given DPs may be Topic or Focus.

Finally, if definite DPs that are Topic must have a preverbal position, and if generic readings pattern with these definite DPs (“high” readings), how come the generic reading is compatible with a postverbal position? This can only be achieved if we assume that the generic reading is not exactly the same position as the preverbal topic definite DP – that we have to operate to a split in the “high” reading system itself. This was anticipated above in the beginning on Section 3.4.

This concludes our discussion for relatives. Anything goes, except for Topics: they must remain preverbally. If an indefinite DP receives a generic interpretation but can occur postverbally, the position involved in topic-hood is not identical to the position involved in generic interpretation.

#### 4.6. *Summing up*

Building the characteristics of the system of functional heads, we end up proposing a minimum of five functional projections, each with a semantic or a pragmatic function:

- (108)
- a. A projection hosting existential subjects (TP or separate FP)
  - b. A projection hosting focused subjects
  - c. A projection hosting generic subjects
  - d. A projection hosting topical subjects
  - e. A projection hosting wh-phrases

The hierarchy is given in (110):

- (109) Wh < Topic < Generic < Focus < Existential

For wh-questions with DP inversion K&P argued for Wh < Topic, to which we added Wh < Generic, which gives Wh < Topic&Generic. For subjunctives we distinguished two cases, Topic&Generic < Focus and Focus < Existential, which sums up as Topic&Generic < Focus < Existential. For locatives we proposed Topic&Generic < Focus < Existential; relatives motivated Topic < Generic.

With respect to remnant movement theory, the computational system essentially functions by moving projections that have an intermediate status in terms of X-bar theory, as illustrated separately in (110):

- (110) a. Wh [ X F [TopP Spec  $t_x$   
 b. Rel [ X F [GenP Spec  $t_x$   
 c. Subj A [ X F [FocP Spec  $t_x$   
 d. Subj B [ X F [ExistP Spec  $t_x$   
 e. Loc [ X F [ExistP Spec  $t_x$   
 b. where:  
 (i) F in e. = FocP of c.  
 (ii) F in d. = FocP of c.  
 (iii) F in c. = TopP of a and/or GenP of b.  
 (iv) F in b. = TopP of a.  
 (v) F in a. = F in C area.

In recent theory (Chomsky 2001, 2005), maximal projections are not primitives of the theory; only the phrase markers have real status. We say that a constituent may move on once a property is cancelled (checking variant) or added (building variant). For example, if a DP is subject to existential quantification and if existential quantification is actually performed/checked, the rest of the phrase marker may move on while leaving behind the existential DP. This view is economical on a meta-level in that it avoids the postulation of additional functional heads just to allow an XP in Specifier position to be left behind. Our view is also economical in the more technical sense: if an existential DP is actually fully interpreted, this is sufficient reason to leave it behind; the derivation continues for further interpretation by moving the not yet fully interpreted phrase marker.

## 5. Conclusions

Locative inversion and the impersonal construction are very close from a purely syntactic as well as from an interpretative point of view. Both are restricted (no transitive verbs), and both involve “low” readings. The differences concern agreement (singular for the impersonal construction, plural for locative inversion) and the fronted position of the locative (versus an (optional) PP in situ for the impersonal construction). These differences are encoded in syntax through the difference between a ‘superlow’ object position (impersonal construction) and a ‘low’ subject position (locative inversion). The use of the ‘low’ subject position and the fronted position of the locative trigger a variant of remnant movement that is absent in the impersonal construction. This remnant movement does not have the same properties as the remnant movement in wh-questions. Empirically, this difference between the remnant movement types is motivated by the grammaticality of indefinites in locative inversion (*Dans le jardin jouaient des enfants*) as opposed to the ungrammaticality in wh-questions (\**Quel roman ont lu des enfants?*).

We adopted the idea by K&P that the non-acceptance of indefinite “low” subjects in wh-questions (\**Quel roman ont lu des enfants*) is due to the fact that in questions the subject must move out to a higher projection before remnant movement, to a Topic Phrase (*Quel roman a lu Jean-topic*). The major general question as to “why should subjects be topics in wh-questions” is answered by our proposal that all direct wh-questions should bear on topical material. The idea of ‘topical material’ can be used not only for the DP subject, but also for an entire TP. This shed a new and different light on the acceptability of complex inversion with indefinite subjects (*Quel roman quelqu’un a-t-il lu*). We succeeded in capturing the paradoxical interpretation as ‘given’ as well as ‘new’ by stating that the indefinite subject here is a subpart of the topic, but it retains its indefinite value, just like in the corresponding non-question sentence (‘repetitive’ new). The proposal of topicalization of TP is independently motivated by the fact that it also captures the idiosyncratic behavior of *pourquoi* (\**Pourquoi est partie Marie*), and, technically, is entirely within the rule format of the computational system (movement of TP may lead to ‘remnant’ movement but need not to).

Inversion in relatives and subjunctives supported the conclusion that the theory of remnant movement should allow for postverbal indefinite DPs (*L’objet qu’a volé quelqu’un/J’aimerais que vienne quelqu’un*). This independently supports our conclusion that inversion in wh-questions involves a unique property (Topichood) which sets it apart from the other ones. Investigation of the use of Topics in relatives and subjunctives led us to conclude that topics must occupy the preverbal position in these constructions. Inverted subjects do occur in these constructions, and we suggested that these are best analyzed in terms of Focus. When the indefinites are involved, we showed that these are constructions of ‘all focus’ or constructions of ‘narrow focus’ combined with prior scrambling; these two exhibit behavior which strongly resembles the behavior of indefinite DPs in the impersonal and locative constructions.

In the cartographic framework (e.g., Rizzi 1997, 2004), the number of functional projections with a topic or a focus interpretation is not limited to one, while our analysis is “simply” based on having one for each. The difference is mainly due to the fact that we did not integrate the several varieties with fronted constituents doubled by pronominal material, and partly to the fact that we did not need them to make the points we wished to make. Nevertheless, there is space for future research here. We made use of the notion of Topic for wh-questions, for subjunctives/relatives and for locatives. One is possibly structurally higher than the other one or one might have slightly different pragmatic values than the other.<sup>55</sup> Note in this respect that the wh-question construction is

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55. For example, in the focalized constructions we made use of the Topic Phrase as the landing

a quasi-obligatory root phenomenon, while the other constructions all involve more optional phenomena, a subset of which (relatives and subjunctives) only occurs in non-root environments. For relatives and subjunctives we essentially made use of the impossibility of leaving a Topic behind, while wh-questions typically showed remnant movement leaving a Topic behind. The basic question is: why do French embedded clauses not allow for postverbal topical DPs? The answer should lie somewhere in the root properties of the C-area, but it is not clear where exactly. The issue has a logical extension. For optional inversion in embedded clauses we made use of Focus, but it is not entirely clear what the influence of Focus in French should be in root clauses. In our analysis, the preverbal position of given DPs stems from their being topical (*Paul-topic est arrivé*). But a preverbal DP might well be new information focus in question/answer pairs (*Qui est arrivé? Paul-focus est arrivé*). Postulating a Focus phrase evidently is possible, but then it is unclear why the remnant movement that generates postverbal DPs in embedded clause is impossible in root clauses (*\*Est arrivé Paul-focus*). In this case the root clause blocks an option available in embedded clauses. The EPP cannot be involved for this pattern, as it triggers overt movement to Spec,TP in our analysis, with possibilities for subsequent movement to TopP or FocP as later steps. So the basic question remains: why do French root clauses not allow for postverbal focused DPs? Taking the two questions together, future research into the exact functional properties of the root clause is in order, for allowing something that is blocked in embedded clauses as well as for blocking something that is allowed in embedded clauses.

With respect to other languages, in the introduction we posed the question whether the restriction is typical for French because French has two different ways of constructing wh-questions or whether the restriction could be more widespread. As we have now advanced to a point at which the issue of the counter-indefiniteness effect is fully integrated into the discussion of the pragmatic properties of wh-questions, it seems to us that we could advance even further by saying that wh-questions should bear on topical material in general: proposal (85) appears to be universal rather than language-specific. For English, this would entail the following interpretative possibilities:

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site of the remnant. But if the standard dichotomy is ground/focus, the landing site of the remnant might also be GroundPhrase (as in Ambar and Pollock 2002). Notice, however, that in our approach the Topic is defined as 'given material', which evidently is close to the notion 'non-new information' in a focus/ground approach. Similar discussion arises for the standard dichotomy Topic/Comment. In fact, there are mostly implicit questions as to the overlap between a Topic/Comment functional structure alongside a Focus/Presupposition functional structure, i.e., how Rizzi's (2004) TopP [XP=Topic, YP=Comment] and FocP [XP=Focus, YP=Presupposition] combine in one phrase marker from the pragmatic point of view (including the question whether they should combine or, on the contrary, are in fact an either/or choice).

- (111) a. \*What did someone (entirely new) see?  
 b. What did someone (repetitive new) see?  
 c. What does someone (generic reading) read in a train?

Interestingly, Ambar and Pollock (2002) noted a similar effect in Portuguese, as illustrated by (112):

- (112) a. *Em que festa alguém comeu caril?*  
 at what party someone ate curry  
 b. \**Em que festa comeu caril alguém?*  
 at what party ate curry someone  
 'At what party did someone eat curry?'

One of the reviewers also added that according to him the Italian counterpart of (2) is also infelicitous. With respect to non-Romance languages, such as Dutch, our analysis entails that at least some interpretative contrast is predicted between (113a) and (113b):

- (113) a. *Welk boek heeft er iemand gekocht?*  
 which book has there someone bought?  
 b. *Welk boek heeft iemand gekocht?*  
 which book has someone bought?  
 'Which book did someone buy?'

That is, due to the availability of transitive expletive constructions in Dutch, the non-impersonal and the impersonal variant of the construction can be compared with the situation in *wh*-questions. Drijkoningen (in prep.) suggests that these predictions are borne out. The least to say is that our proposal that *wh*-questions should bear on topical material makes non-trivial and interesting predictions beyond French, if their interpretative content is taken into consideration rather than the more surface-oriented properties of syntactic word order.

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